CAPPUCCINO, COFFEE, and SOUP DISPENSERS

GB-IT (Intelligent Technology)

- **Microprocessor Technology**
- **Touch Pad Control Panel**
- **Free Flow and Portion Control**
- **Counts Total Number of Cups Dispensed**
- **Automatic Rinse Cycle**
- **Diagnostics for Electrical Problems**
- **Removable & Replaceable Picture easy - no assembly required**

OPERATION MANUAL

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Cecilware sells value... Worldwide

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FAX 718-932-7860

NG95A 3/00

Specifications									
MODEL:	WIDTH in	DEPTH in	HEIGHT in	HOPPERS QTY.	HOPPERS LB.	TANK GAL.	BURST CAPACITY	LIT DISPLAY AREA (W x H) Sq.in.	SHIPPING WEIGHT LB.
GB1M-IT	8.5	22	34	1	8	2.2	58	(7x13)91	65
GB2M-5.5-IT	8.5	22	34	2	5.5	2.2	58	(7x13)91	86
GB3M-5.5.IT	11	22	34	3	4	3.2	85	(9½ x13)123	100
GB3M-5.5-IT S/S	11	22	34	3	5.5	3.2	85	(9½ x 13) 123	100
GB3M-IT-10 LEFT [11.5"W]	11.5	22	34	1 2	10 5.5	4.5	112	(12 3/8 x 13) 164	110
GB3M-IT-10 RIGHT [11.5"W]	11.5	22	34	1 2	10 5.5	4.5	112	(12 3/8 x 13) 164	110
GB4M-IT	14.125	22	34	4	5.5	4.5	112	(12 3/8 x 13) 164	120
GB5M-IT	17.25	22	34	5	5.5	4.5	140	(12 3/8 X 13) 164	140

All models are with or without LD (Lit Display)

Height: Add an additional 1" when installing with 1" feet or 4" when installing with 4"legs.
Plumbing: ¼" water line required.

* Burst Capacities: Max. # of drinks dispensable with available hot water - based on 6 oz. cups.
**Clearance: Add 2" for line cord and valve fitting.

Electrical Specifications								
Model No.	**Volts**	**Phase**	**Hz**	**Watts**	**Number of Heaters**	**Amps**	**Receptacle Nema No.**	**Circuit Breaker**
ALL MODELS	120V	1	60	60	1	15	5-15R	15A
ALL MODELS	120/240V	1	60	60	1	15	L14-20R**	20A
ALL EXPORT MODELS	220V	1	60	60	1	15	††	20A
GB3M-5.5-IT, GB4M-5.5-IT	120/240V	1	60	60	2	25	L14-30R**	30A

120V. 1.8 KW, 15A, Nema 5-15R standard on all models; 3.0 KW and 6.0 KW, 1201240V units available

** 120/240V, 3 pole, 4 wire grounding type Twist-Plug Receptacle. For 240V units. Use L6-20R or L6-30R, 2 pole, 3 wire Twist-Plug Receptacle.

††220V Export Receptacle to be specified where order is placed.

See Electrical Data Label attached to the back of the unit for proper voltages, breaker sizes and electrical outlet requirements for each model number listed.

See wiring diagram in back of manual, for wiring instructions.

UNPACKING INSTRUCTIONS

Carefully unpack the GB Machine and inspect immediately for shipping damage. Your GB Machine was shipped in a carton designed to give it maximum protection in normal handling. It was thoroughly inspected before leaving the factory. In case of damage, contact the shipper, not Cecilware.

INSTALLATION INSTRUCTIONS

Water Inlet Connection:

This equipment is to be installed to comply with the applicable Federal, State, or local plumbing codes having jurisdiction. In addition:

1. A quick disconnect water connection or enough extra coiled tubing (at least 2x the depth of the unit) so that the machine can be moved for cleaning underneath.
2. An approved back flow prevention device, such as a double check valve to be installed between the machine and the water supply.

The GB beverage dispenser is equipped with a ⅜" Flare Water Inlet Fitting which is located on the left side in the back of the base.

H/GHLY RECOMMENDED:

A WATER SHUT-OFF VALVE and A WATER FILTER, preferably a combination Charcoal/Phosphate Filter, to remove odors and inhibit lime and scale build up in the machine. ***Note: In areas with extremely hard water, a water softener must be installed in order to prevent a mal-functioning of the equipment and in order not to void the warranty.***

After the machine has been unpacked and placed on a counter, pull out the stainless steel drip tray. It should contain the following:
A Set of 4 Adjustable Leveling Legs & Water Inlet Fitting.

START-UP PROCEDURE

1. Connect the ¼" dia. copper waterline to the ¼" flare water inlet fitting of the valve.

2. Plug the power cord into a proper receptacle.

3. Activate the **Power Switch** (Toggle Up) located on the right side of the splash panel below the door.
   The power switch controls all power to the machine including the heater elements.
   The door display panel will light up and the tank will start filling.
   The LCD window will display this message briefly "CECILWARE, DISPENSER V#.##"

4. The LCD window will display this message "Low Water Level". Allow approximately 3-5 minutes for the tank to fill.
   If the tank does not fill up within the first 5 minutes an error message will appear in the CD window [SYSTEM ERROR, FILL RESPONSE].
   See Definition of Screen and Troubleshooting Guide.

5. The LCD window will display this message "Low Water Temp." Allow up to 30 minutes for the water to reach a temperature of 190°F.
   The heat up time will depend on the water inlet temperature, the input voltage and the wattage of the elements in the machine.

   While the tank is heating up, remove the hoppers, load them with products and reposition them back in the machine. Be sure to reposition the hoppers so that the 1/4" pin slides into the hole of the compartment base.

   When the machine has reached the proper dispensing temperature, the LCD window Will display one of these messages:

IF THE RINSE MODE IS **ON**		IF THE RINSE MODE IS **OFF**
PLEASE RINSE TO CONTINUE	**OR**	**PLEASE SELECT CHOICE OF DRINK**

   To Rinse press simultaneously the Rinse/Blue Button & Green Button for each hopper.

6. To Dispense a Cup of Cappuccino or Soup: Place a 8 oz. or larger cup under selected drink dispense nozzle. Press Dispense/Green Button.

   For units set for "free flow": Push and hold Green button until cup is 2/3 full, then release button.
   For units set for "portion control": Press and Release Green Button. Cup will fill up automatically to it's preset amount.
   The machine is factory preset to dispense water at the rate of 1 oz./sec. for Cappuccino and 1.3 oz/sec. for Soup.
   This flow rate corresponds with the factory preset cup sizes [small 6 oz.] [medium 8 oz.] [large 12 oz.].
   To adjust the Water Flow Rate on the Dispense Valve see Illustration B .
   See **Programming Instructions** if different levels of drink strength are desired or different cup sizes are desired.

TO CHECK VOLUME AMD GRAM THROW/DISPENSED (RATIO):

NOTE: These GB units have a fixed speed Auger Motor CD150 [95 RPM] and dispenses powder at a constant fixed rate.
The water flow rate should not exceed 1.3 oz./sec. This may cause overflow in the mixing chamber/cup.

a. Remove the product guide from the hopper and position a receptacle under the hopper nozzle to catch the gram throw of product.
   Also place a measuring cup under extension tube to catch the water dispensed.
b. Push the dispense button and check the amount of product dispensed, amount of water dispensed, and time [use stop watch] to dispense that water.
c. The amount of water dispensed in the measuring cup divided by the time required to dispense that water is the Water Flow Rate from Dispense Valve.
   If the amount [oz.] of water dispensed is different from the programmed amount [oz.] for Cup Size, then adjust the Water Flow Rate from Dispense Valve.
   See illustration B.

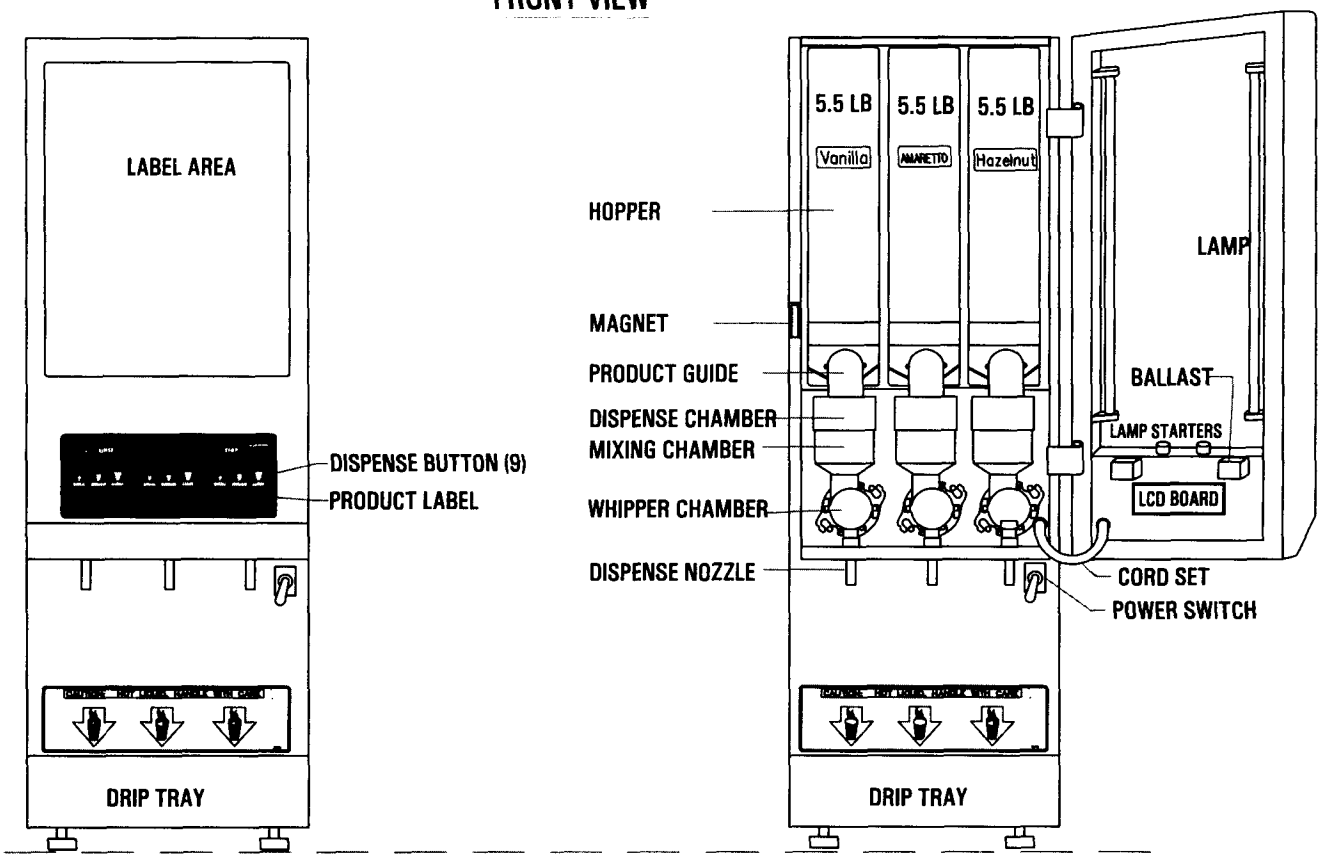
FOR CAPPUCCINO: The machine is factory adjusted to dispense 4-4.5 gr./sec. per OZ. Cup. [32 grams Product per 8 oz. cup]
The recommended throw is 28-32 grams per 8 oz. cup for Cappuccino, with 80% fill.

FOR COFFEE: The machine is factory adjusted to dispense 0.3 gr./sec per OZ. Cup. [1.5 grams of coffee product per 5 oz. of liquid (in a 6 oz. cup). The recommended throw is 1.5 to 1.8 grams per 6 oz. cup of Coffee, with 80% fill.

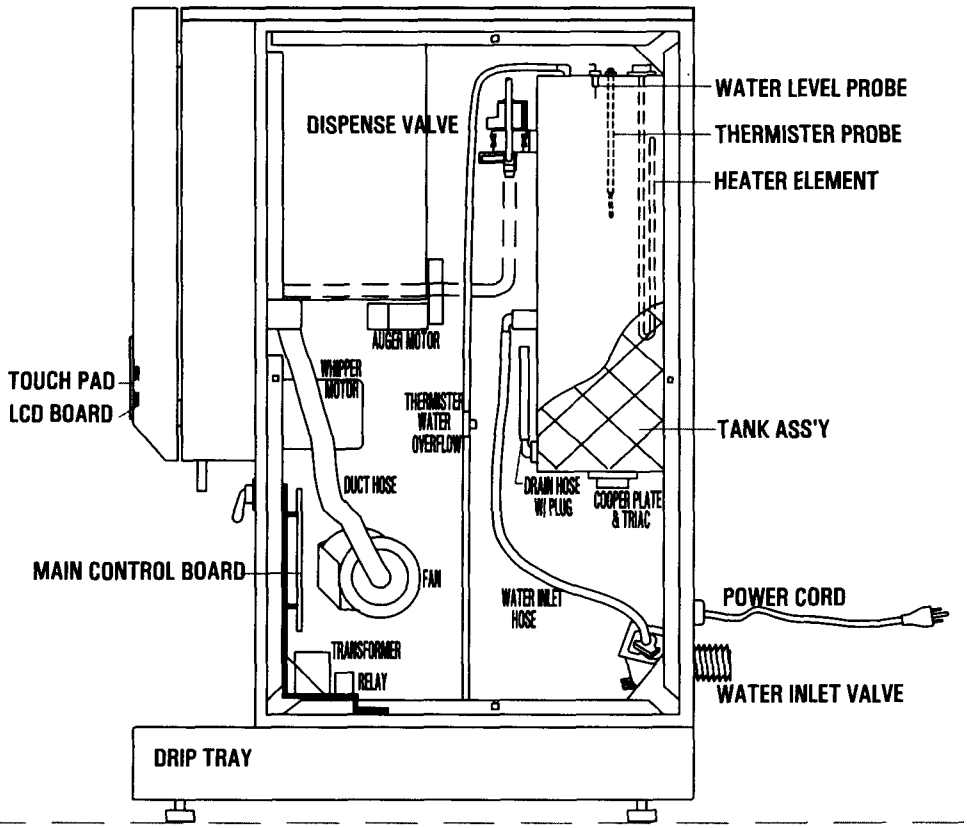
FOR SOUP: The machine is factory preset to specified customer requirements, because the gram throw for each soup flavor and type varies considerably with the consistency of each product. Adjustments can also be made by the customer, as shown above and by programming the desired amounts.
For customer specified/special settings see insert.

GB3M-5.5-IT COMPONENTS LOCATION - III. A

FRONT VIEW



RIGHT SIDE VIEW



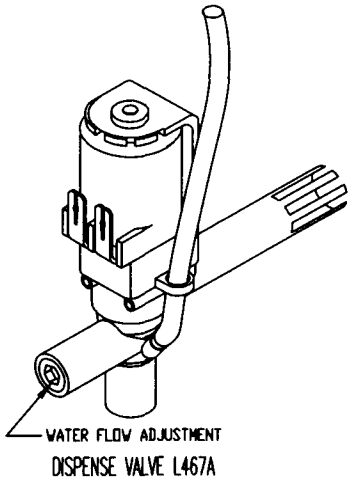
WATER LEVEL CONTROLS:
Under normal conditions and operation, the water level in the tank should not drop more than ½" from the probe.
If it does, the tank is not refilling fast enough. Check the water line and water filter, they may need cleaning or replacing.

Water Inlet Valve L462A;

Water Level Probe K355Q
[K402A & P410A]

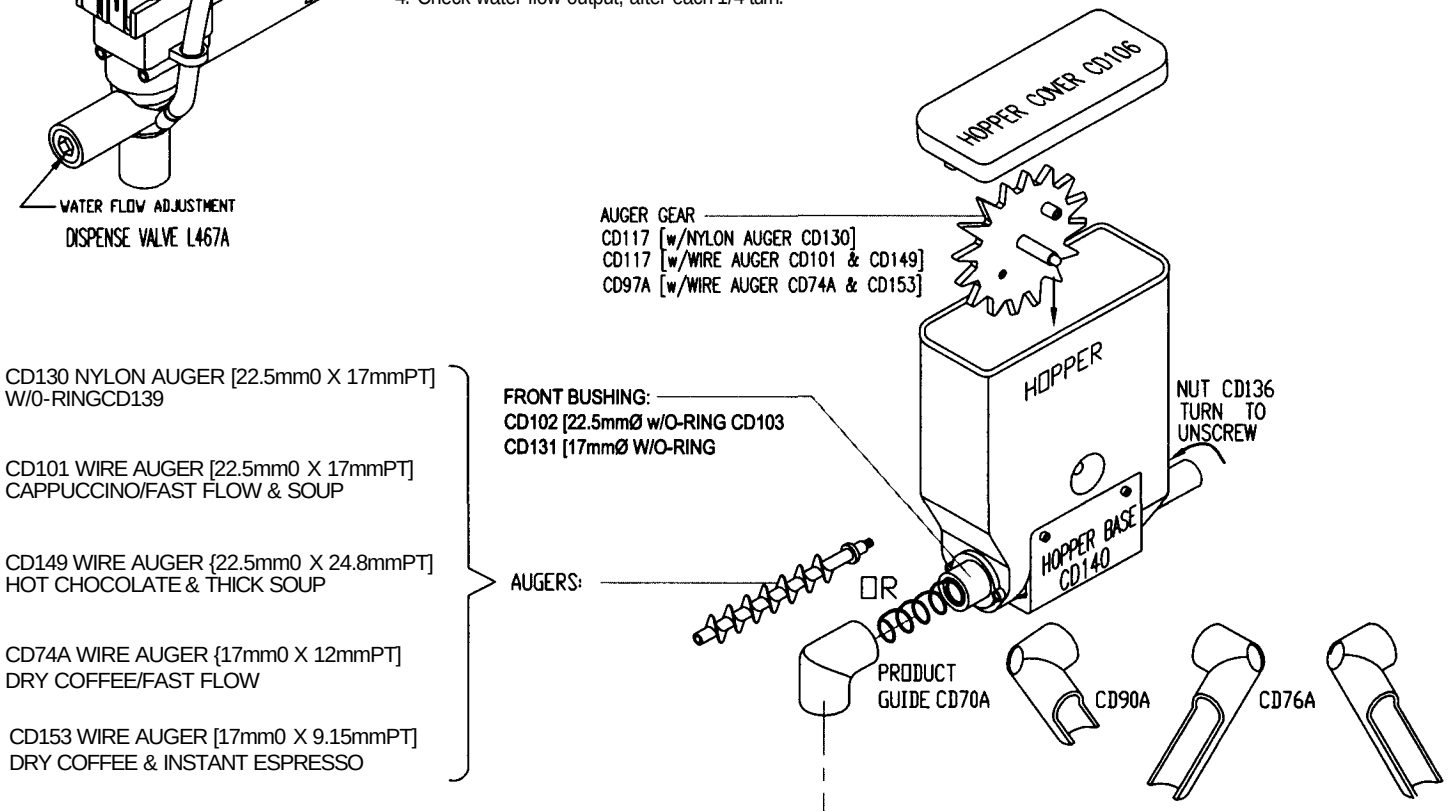
ADJUSTMENTS – ILL. B

WATER FLOW RATE



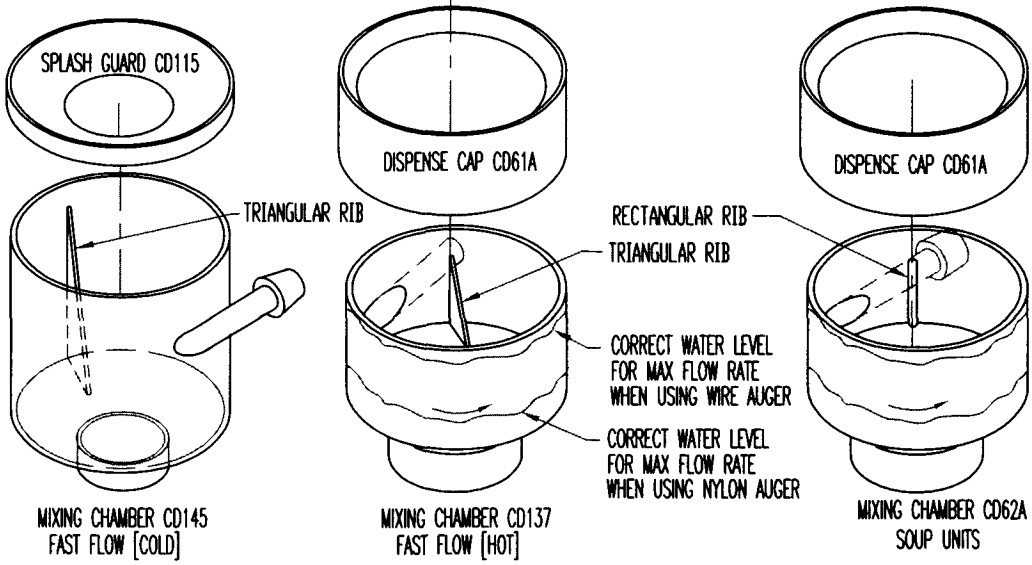
The Dispense Valves are factory adjusted for a maximum Flow Rate of **1 to 1.3 oz./sec.**
[Approximate settings: **0.85 to 1 oz./sec for SOUP; 1.3 oz/sec. for COFFEE and CAPPUCCINO**]
Exceeding this Flow Rate will cause the Mixing Chamber to overflow.
Note: To access the Water Dispense Valves, open door and remove Hoppers.
TO ADJUST WATER FLOW RATE:

1. Open door and remove hoppers. Locate Dispense Valve behind hoppers, mounted on tank.
2. Locate adjustment screw on Dispense Valve.
3. Using Alien Key or flat screwdriver rotate, 1/4 turn at a time,
   CLOCKWISE to decrease water flow, or
   COUNTERCLOCKWISE to increase water flow.
4. Check water flow output, after each 1/4 turn.



A. When using <u>NYLON AUGERS</u>:
Adjust Water Flow Rate so that the water level reaches <u>almost at the top</u> in the Mixing Chamber, as shown.

B. When using <u>WIRE AUGERS</u>:
Adjust Water Flow Rate so that the water level reaches <u>half way up</u> in the Mixing Chamber, as shown.



Features and Benefits of the Digital Dispenser Controller

1. 100% Solid State Control for improved reliability
2. Modular design and reduced component count for ease of service
3. Optional sanitary features such as Rinse Lockouts and Rinse Warnings
4. Redundant system interlocks for uncompromising user safety
5. Large two line display for viewing system status and modifying parameters
6. Individual dispense counters and totalizers for product marketing information and inventory control
7. Advanced system diagnostics that continuously monitor the status of all motors, solenoids, sensors, and heaters to ensure proper operation and aid in identifying potential problems
8. Protection from heater burnout due to lack of water in the reservoir tank
9. Elimination of dry powder feed at the beginning of a dispense and product dilution at the end of a dispense
10. Extremely accurate dispensing control utilizing DC servo-motor drive technology
11. Stable water temperature regulation with an adjustment resolution of one-degree Fahrenheit
12. Optional Low Water Temperature Lockout to prevent dispensing at water temperatures below an adjustable threshold
13. Units of measure displayed in either English or Metric
14. Digital adjustment of serving sizes with a resolution of one-tenth of an ounce
15. Digital adjustment of gram throw with a resolution of one-percent-of-maximum
16. Audible alarm
17. User selectable "Portion Control" or "Free Flow" dispense modes
18. Optional power saving "sleep mode" for extended periods of inactivity
19. Easy to use menu-driven dispensing and rinsing instructions
20. Optional Teach-Me method of setting serving size
21. Several "engineering functions" designed to speed new product development

Parameter Definitions for System Software Version 1.11

1. **Grand Total** - This parameter indicates the total amount of water dispensed (in ounces or milliliters) for the entire machine. The Grand Total does not include Rinse Dispenses. The maximum Grand Total value is 16,777,216 ounces; after which the value will begin again from zero. This parameter cannot be reset to zero. **Default Values has no effect on this parameter.**

2. **Dispense Total** - This parameter indicates the total amount of water dispensed (in ounces or milliliters) for a selected hopper. The Dispense Total does not include Rinse Dispenses. The maximum Dispense Total value is 16,777,216 ounces; after which the value will begin again from zero. This parameter cannot be reset to zero. **Default Values has no effect on this parameter.**

3. **Dispense Counter** - This parameter indicates the total number of cups dispensed for a selected Serving Size. The Dispense Counter does not include Rinse Dispenses. The maximum Dispense Counter value is 49,999; after which the value will begin again from zero. In Service Mode this parameter can be reset to zero by simultaneously depressing the and Keys. **Default Values has no effect on this parameter.**

4. **Dispense Mode** - This parameter determines whether the system dispenses in a continuous (Free Flow) or fixed size (Portion Control) method. **The default setting for this parameter is Portion Control.**

5. **Serving Size** - This parameter determines the amount of water dispensed for each Dispense Key when the Dispense Mode is set to Portion Control. **The default settings are as fallows: Small = 6.0 ounces. Medium = 8.0 ounces. Large = 12.0 ounces. The minimum Serving Size is 2.0 ounces. The maximum Serving Size is 64.0 ounces.**

6. **Gram Throw** - This parameter determines the ratio of product to water during a Dispense for a selected Hopper. The units of measure for Gram Throw are proportional to Auger Turns per ounce of water. At a Fill Constant of 1.00 ounces per second the maximum Gram Throw is 100 and the minimum Gram Throw is 20. The maximum and minimum values are scaled proportional to a Fill Constant of 1.00 ounces per second. For example: if the Fill Constant is set to 1.30 ounces per second the maximum Gram Throw would be (100*1.001/1.3 - 77. This prevents the user from requesting a Gram Throw that is beyond the capability of the Auger Motor. Auger Start and Stop Times have no effect on this parameter. **The default setting for this parameter is 75.**

7. **Auger Start Time** - This parameter sets the time that the Auger starts to turn relative to the activation (opening) of the Dump Valve. A positive value indicates an Auger starting at some time after the opening of the Dump Valve. A negative number indicates an Auger starting at some time before the opening of the Dump Valve. The minimum Auger Start Time = (-3.0) seconds. The maximum Auger Start Time is 3.0 seconds. **The default value for this parameter is 0.3 seconds.**

8. **Mixer Start Time** - This parameter sets the time that the Mixer starts to turn relative to the activation (opening) of the Dump Valve. A positive value indicates a Mixer starting at some time after the opening of the Dump Valve. A negative number indicates a Mixer starting at some time before the opening of the Dump Valve. The minimum Mixer Start Time - (-3.0) seconds. The maximum Mixer Start Time is 3.0 seconds. **The default value for this parameter is 0.3 seconds**.

9. **Auger Stop Time** - This parameter sets the time that the Auger stops turning relative to the de-activation (closing) of the Dump Valve. A positive value indicates an Auger stopping at some time after the closing of the Dump Valve. A negative number indicates an Auger stopping at some time before the closing of the Dump Valve. The minimum Auger Stop Time = (-3.0) seconds. The maximum Auger Stop Time is 3.0 seconds. **The default value for this parameter is 0.3 seconds.**

10. **Mixer Stop Time** - This parameter sets the time that the Mixer stops turning relative to the de-activation (closing) of the Dump Valve. A positive value indicates a Mixer stopping at some time after the closing of the Dump Valve. A negative number indicates a Mixer stopping at some time before the closing of the Dump Valve. The minimum Mixer Stop Time = (-3.0) seconds. The maximum Mixer Stop Time is 3.0 seconds. **The default value for this parameter is 0.6 seconds.**

11. **Fill Constant** - This parameter is set to the actual Fill Rate of all of the Dump Valves. All Dump Valves in a system must be adjusted so that they have equal Fill Rates. The maximum Fill Constant is 4.00 ounces per second. The minimum Fill Constant is 0.50 ounces per second. The maximum and minimum values are scaled proportional to a Gram Throw of 100. For example: if the highest Gram Throw setting is 77 then the maximum Fill Constant would be (100*1.001/77 = 1.30. This prevents the user from requesting a Gram Throw that is beyond the capability of the Auger Motor. **The default setting for this parameter is 1.30 ounces per second.**

12. **Rinse Dispense Time** - This parameter determines the amount of time that the Dump Valve is open during a Rinse Cycle. The minimum Rinse Time - 3 seconds. The maximum Rinse Time is 15 seconds. **The default value for this parameter is 6 seconds.**

Parameter Definitions continued

13. **Rinse Warning Status** - This parameter determines whether the Rinse Warning Option is turned ON or OFF. If this option is ON the system generates a Rinse Warning if a Hopper has dispensed and has not been Rinsed for of time greater than that defined by (50 * Rinse Lockout Time) minutes. For example: If the Rinse Warning Status is ON and the Rinse Lockout Time is 6 Hours then a Rinse Warning will be generated when a Hopper is not Rinsed for more than (50 * 6 = 300) minutes (5 hours). Generating a Rinse Warning will cause the audible alarm to sound for two seconds and the Rinse Warning Screen to be displayed for five seconds. The system will then revert back to normal operation. If the offending Hopper is not rinsed after the first Rinse warning additional Rinse Warnings will be generated every five minutes until the respective Hopper is rinsed. **The default setting for this parameter is OFF.**

14. **Rinse Lockout Status -**This parameter determines whether the Rinse Lockout Option is turned ON or OFF. If this option is ON the system generates a Rinse Lockout if a Hopper has dispensed and has not been Rinsed for a period of time greater than that defined by the Rinse Lockout Time. Once a Hopper enters Rinse Lockout the LED's of the Dispense Keys related to that Hopper will turn OFF thus indicating that the Hopper will no longer dispense. **The default setting for this parameter is OFF.**

15. **Rinse Lockout Time** - This parameter determines the length of time required before entering Rinse Lockout. The minimum Rinse Lockout Time = 1 hour. The maximum Rinse Lockout Time is 12 hours. **The default value for this parameter is 6 hours.**

16. **Water Temperature Set Point** - This parameter determines the required reservoir tank water temperature. The minimum Water Temperature Set Point is 140°F. The maximum Water Temperature Set point is 203°F. **The default value for this parameter is 190°F**.

17. **Low Water Temperature Lockout Status** - This parameter determines whether the Low Water Temperature Lockout Option is turned ON or OFF. If this option is ON the system generates a Low Water Temperature Lockout if the present water temperature is below the value defined by the Low Water Temperature Lockout Set Point. Once a Hopper enters Low Water Temperature Lockout, all of the Dispense Key LED's will turn OFF thus indicating that the system will no longer dispense. **The default setting for this parameter is ON.**

18. **Low Water Temperature Lockout Set Point** - This parameter determines the minimum reservoir tank water temperature allowed before entering Low Water Temperature Lockout. The minimum Low Water Temperature Lockout Set Point is 125°F. The maximum Low Water Temperature Lockout Set point is 203°F. The **default value for this parameter is 140°F.**

19. **Sleep Mode Status** - This parameter determines whether the Sleep Mode Option is turned ON or OFF. If this option is ON and the system has not dispensed for four hours the system will enter Sleep Mode. Once in Sleep Mode the system will reduce the required Water Temperature to equal that defined by (10°F + Low Water Temperature Lockout Set Point). **The default setting for this parameter is OFF.**

20. **Hopper Status** - This parameter determines the whether a selected Hopper is turned ON or OFF. If a Hopper is ON then the Auger Motor, Mixer Motor, and Dump Solenoid status checking is enabled and the Hopper is allowed to dispense. If a Hopper is OFF then Auger Motor, Mixer Motor, and Dump Solenoid status checking is disabled and the LED's of the Dispense Keys related to that Hopper will turn OFF thus indicating that the Hopper will no longer dispense. **The default setting for this parameter is OFF.**

21. **Auger Status** - This parameter determines whether the Auger Motor of the selected Hopper is turned ON or OFF. If an Auger Motor is ON then dispenses from the selected Hopper will include powder (product). If an Auger Motor is OFF then dispenses from the selected Hopper will not include powder (product). This is a temporary parameter and is reset to the default setting at "power-on". **The default setting for this parameter is ON.**

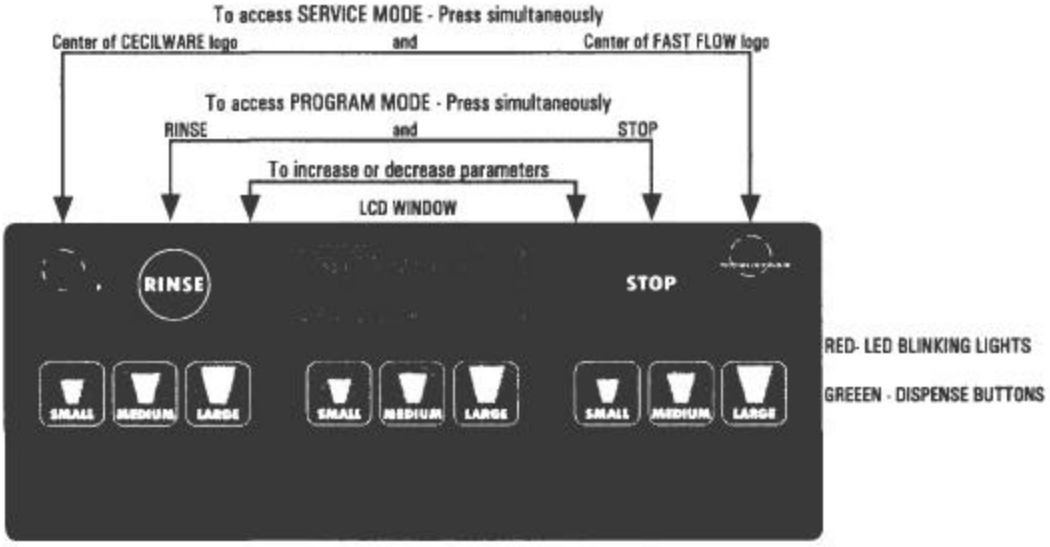
22. **Mixer/Dump Status** - This parameter determines whether the Mixer/Dump (combination of the Mixer Motor and Dump Solenoid) of the selected Hopper is turned ON or OFF. If a Mixer/Dump is ON then dispenses from the selected Hopper will mix and will include water. If a Mixer/Dump is OFF then dispenses from the selected Hopper will not mix and will not include water. This is a temporary parameter and is reset to the default setting at "power-on". **The default setting for this parameter is ON.**

23. **Displayed Units** - This parameter determines whether the displayed units of measure are English or Metric. If the Displayed Units parameter is set to English then all temperatures are displayed as Degrees Fahrenheit and all volumes are displayed as Fluid Ounces. If the Displayed Units parameter is set to Metric then all temperatures are displayed as Degrees Celsius and all volumes are displayed as Milliliters. **The default setting for this parameter is English.**

24. **Dispense Type** - This parameter determines whether the customer is prompted to select a choice of Drink or choice of Soup. If the Dispense Type is set to Drink then the instructional prompt will read "PLEASE SELECT CHOICE OF DRINK". If the Dispense Type is set to Soup then the instructional prompt will read "PLEASE SELECT CHOICE OF SOUP". **The default setting for this parameter is Drink.**

25. **Default Parameters** - This screen gives the user the ability to reset all system parameters except the Grand Total, Dispense Total, and Cups Dispensed. Simultaneously depressing the and keys will force all system parameters to revert to designated individual default settings. ***Important Note* The default status for all Hoppers is OFF. Thus before any Hopper will dispense the Hopper Status must be manually set to ON.**

PROGRAMMING INSTRUCTIONS • PROGRAM MODE



The a functional description of Version 1.07 of the dispensing controller is as follows:

Modes of Operation

1. **Initializing Mode - This mode is only active during the first few seconds after a "power-on" or system reset. The main function of this mode is to configure the system using the previously saved operating parameters.**
2. **Normal Mode - This mode becomes active immediately after Initializing Mode has completed its tasks. The main functions of this mode are to monitor and report system status and control dispensing.**
3. **Rinse Mode - This mode becomes active when the *Rinse* key is depressed while in Normal Mode. The main function of this mode is to allow the operator to initiate an individual Rinse for any enabled Hopper.**
4. **Program Mode -This mode becomes active when the *Rinse* and the *Stop* keys are simultaneously depressed for more than 1.5 seconds while in Normal Mode. The main function of this mode is to provide limited access to frequently used system parameters.**
5. **Service Mode -This mode becomes active when the hidden keys under the "Cecilware Logo" and the "Fast Flow Logo" are simultaneously depressed for more than 1.5 seconds while in Normal Mode. The main function of this mode is to allow access to all system parameters that can be modified.**

Initializing Mode

The following screen signifies this presence of this mode:

CECILWARE
DISPENSER V#.##

It should be noted that this is the only time the System Software Version Number (V #.##) is displayed. All other functions of this mode are completely transparent to the operator.

Normal Mode

The following is a list of functions performed by this mode:

1. **Dispensing Control -This mode is responsible for implementing and supervising the dispensing process.**
2. **Water Level Control -This mode is responsible for maintaining the proper level of water in tha reservoir tank.**
3. **Water Temperature Control - This mode is responsible for maintaining the required water temperature in the reservoir tank.**
4. **Sanitary (Rinse) Functions -This mode is responsible for annunciating and enforcing rinse warnings and lockouts.**
5. **Safety Functions -This mode is responsible for monitoring all sensors, motors, solenoids, and heaters for proper operation.**

Rinse Mode

An individual Rinse is initiated by simultaneously pressing the *Rinse* key and a *Dispense* key corresponding to the hopper to be rinsed.

Program Mode

General Conventions (unless otherwise indicated)

1. To enter or exit Program Mode simultaneously depress both the *Rinse* key and the *Stop* key until the buzzer sounds (approximately 1.5 seconds).
2. Pressing the *Stop* key will cause the menu to scroll up and pressing the *Rinse* key will cause the menu to scroll down.
3. The blinking LED's) signify which Hopper or Serving Size the displayed parameter corresponds to.
4. Pressing the ⇩ and ⇧ keys individually will decrease or increase the displayed parameter respectively.
5. Pressing the ⇩ and ⇧ keys simultaneously will cause the parameter to revert to a default value.

Functions:

1. All Dispense LED's will be illuminated and the LCD/VFD screen will display the following:

DISPENSE TOTAL SELECT A KEY

2. If the *Stop* key is pressed the LCD/VFD screen will display the following:

DISPENSE TOTAL #######.# oz.

3. Pressing any of the *Dispense* keys will cause the *Dispense* LED of the corresponding key to blink and the LCD/VFD screen will display the serving counter for the indicated *Dispense* key as follows:

SERVING COUNTER SELECT A KEY

4. Pressing any of the *Dispense* keys will cause the *Dispense* LED of the corresponding key to blink and the LCD/VFD screen will display the **Serving Counter** for the indicated *Dispense* key as follows:

SERVING COUNTER ##### CUPS

5. If the *Stop* key is pressed the LCD/VFD screen will display the following:
6. If the ⇩ or ⇧ keys are pressed the Dispense Mode will toggle between "free flow" and "portion control".

DISPENSE MODE FREE FLOW	DISPENSE MODE PORTION CONTROL

7. If the *Stop* key is pressed the LCD/VFD screen will display the following:

TEACH-ME SETUP ARE YOU SURE?

8. Pressing the ⇩ or ⇧ keys simultaneously will cause the menu to display the following:

TEACH-ME SETUP SELECT A KEY

Teach Me Timer Setup

A. Place cup or decanter under the desired nozzle.
B. Press one of the illuminated *Dispense* keys corresponding to the selected nozzle to begin dispensing.
C. Release the *Dispense* key to stop dispensing.
D. Wait a short time to allow the foam to settle.
E. Jog the *Dispense* key as needed to top off cup or decanter.
F. If desired simultaneously press the ⇩ and ⇧ keys to use the last Serving Size for all equal cup sizes.
Repeat steps A-F for each *Dispense* key as required.

9. If the *Stop* key is pressed the LCD/VFD screen will display the following:

SERVING SIZE SELECT A KEY

10. Pressing any of the *Dispense* keys will cause the *Dispense* LED of the corresponding key to blink and the LCD/VFD screen will display the Serving Size for the indicated *Dispense* key as follows:

SERVING SIZE ##.# OZ.

11. Pressing ⇩ or ⇧ key will decrease or increase the **Serving Size** respectively.
12. If the *Stop* key is pressed the LCD/VFD screen will display the following:

GRAM THROW SELECT A KEY

13. Pressing any of the *Dispense* keys will cause the *Dispense* LED(s) of the corresponding Hopper to blink and the LCD/VFD screen will display the **Gram Throw** for the indicated Hopper as follows:

GRAM THROW ###

14. Pressing ⇩ or ⇧ key will decrease or increase the Gram Throw respectively.
15. If the *Stop* key is pressed the LCD/VFD screen will display the following:

HOPPER STATUS SELECT A KEY

16. Pressing any of the *Dispense* keys will cause the *Dispense* LED(s) of the corresponding Hopper to blink and the LCD/VFD screen will display the Status for the indicated Hopper as follows:

HOPPER STATUS ON	HOPPER STATUS OFF

17. If the ⇩ or ⇧ keys are pressed the Hopper Status will toggle between "on" and "off".

Note: IF either the Auger Motor, or Mixer Motor, or Solenoid Error Screen appear: The entire system is inoperable this means that one of either the Auger Motor, or Mixer Motor, or Solenoid [Dispense Valve] is not functional while that Hopper Status in ON. To continue operating the other Hoppers:
Press RINSE, Press ⇩ ⇧ key until you get the HOPPER STATUS screen, Set the non-functional HOPPER STATUS to **OFF**, Wait at least 10 sec., then Exit program.

Service Mode

General Conventions:

1. To enter or exit Service Mode simultaneously depress both the hidden key behind the **Cecilware Logo** and the hidden key behind the **Fast Flow Logo** until the buzzer sounds (approximately 1.5 seconds).
2. Pressing the *Stop* key will cause the menu to scroll up and pressing the *Rinse* key will cause the menu to scroll down.
3. The blinking LED(s) signify which Hopper or Serving Size the displayed parameter corresponds to.
4. Pressing the ↓ and ↑ keys individually will decrease or increase the displayed parameter respectively.
5. Pressing the ↓and↑ keys simultaneously will cause the parameter to revert to a default value.

Functions:

1. All Dispense LED's will be illuminated and the LCD/VFD screen will display the following:

DISPENSE TOTAL SELECT A KEY

2. Pressing any of the *Dispense* keys will cause the *Dispense* LED of the corresponding key to blink and the LCD/VFD screen will display the serving counter for the indicated *Dispense* key as follows:

DISPENSE TOTAL #######.# OZ.

3. Pressing the↓and↑ keys simultaneously will reset the Dispense Total for the indicated Hopper.
4. If the *Stop* key is pressed the LCD/VFD screen will display one of the following:

SERVING COUNTER SELECT A KEY

5. Pressing any of the *Dispense* keys will cause the *Dispense* LED of the corresponding key to blink and the LCD/VFD screen will display the Serving Counter for the indicated *Dispense* key as follows:

SERVING COUNTER SELECT A KEY	SERVING COUNTER ##### CUPS

6. Pressing the↓and↑ keys simultaneously will reset the Serving Counter for the indicated *Dispense* key.
7. If the *Stop* key is pressed the LCD/VFD screen will display the following:

DISPENSE MODE FREE FLOW	DISPENSE MODE PORTION CONTROL

9. If the *Stop* key is pressed the LCD/VFD screen will display the following:

SERVING SIZE SELECT A KEY

10. Pressing any of the *Dispense* keys will cause the *Dispense* LED of the corresponding key to blink and the LCD/VFD screen will display the Serving Size for the indicated *Dispense* key as follows:

SERVING SIZE ##.## OZ.

11. If the *Stop* key is pressed the LCD/VFD screen will display the following:

GRAM THROW SELECT A KEY

12. Pressing any of the *Dispense* keys will cause the *Dispense* LED(s) of the corresponding Hopper to blink and the LCD/VFD screen will display the Gram Throw for the indicated Hopper as follows:

GRAM THROW ###

13. If the *Stop* key is pressed the LCD/VFD screen will display the following:

AUGER START TIME SELECT A KEY

14. Pressing any of the *Dispense* keys will cause the *Dispense* LED(s) of the corresponding Hopper to blink and the LCD/VFD screen will display the Auger Start Time for the indicated Hopper as follows:

AUGER START TIME #.# SEC.

15. If the *Stop* key is pressed the LCD/VFD screen will display the following:

MIXER START TIME SELECT A KEY

16. Pressing any of the *Dispense* keys will cause the *Dispense* LED(s) of the corresponding Hopper to blink and the LCD/VFD screen will display the Mixer Start Time for the indicated Hopper as follows:

MIXER START TIME #.# SEC.

17. Pressing any of the *Dispense* keys will cause the *Dispense* LED(s) of the corresponding Hopper to blink and the LCD/VFD screen will display the Auger Stop Time for the indicated Hopper as follows:

AUGER STOP TIME SELECT A KEY

18. If the *Stop* key is pressed the LCD/VFD screen will display the following:

AUGER STOP TIME #.# SEC.

19. If the *Stop* key is pressed the LCD/VFD screen will display the following:

MIXER STOP TIME SELECT A KEY

20. Pressing any of the *Dispense* keys will cause the *Dispense* LED(s) of the corresponding Hopper to blink and the LCD/VFD screen will display the Mixer Stop Time for the indicated Hopper as follows:

MIXER STOP TIME SELECT A KEY

Service Mode -CONTINUED

21. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:

FILL CONSTANT #.## OZ./SEC.

22. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY ONE OF THE FOLLOWING:

RINSE TIME ## SEC.

23. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY ONE OF THE FOLLOWING:
24. IF THE↓AND ↑ KEYS ARE PRESSED THE RINSE LOCKOUT WILL TOGGLE BETWEEN "ON" AND "OFF".

RINSE WARNING ON	RINSE WARNING OFF

25. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY ONE OF THE FOLLOWING:
26. IF THE↓AND ↑ KEYS ARE PRESSED THE RINSE WARNING WILL TOGGLE BETWEEN "ON" AND "OFF".

RINSE LOCKOUT ON	RINSE LOCKOUT OFF

27. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:

RINSE LOCKOUT ## HRS.

28. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:

WATER TEMP. ### DEG F

29. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:
30. IF THE↓AND ↑ KEYS ARE PRESSED LOW TEMPERATURE LOCKOUT WILL TOGGLE BETWEEN "ON" AND "OFF".

TEMP LOCKOUT ON	TEMP LOCKOUT OFF

31. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:

LOW TEMP LOCKOUT ### DEG F

32. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:

HOPPER STATUS SELECT A KEY

33. PRESSING ANY OF THE *DISPENSE* KEYS WILL CAUSE THE *DISPENSE* LED(S) OF THE CORRESPONDING HOPPER TO BLINK AND THE LCD/VFD SCREEN WILL DISPLAY THE STATUS FOR THE INDICATED HOPPER AS FOLLOWS:
34. IF THE↓ AND ↑ KEYS ARE PRESSED THE HOPPER STATUS WILL TOGGLE BETWEEN "ON" AND "OFF".

HOPPER STATUS ON	HOPPER STATUS OFF

35. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:

AUGER STATUS SELECT A KEY

36. PRESSING ANY OF THE *DISPENSE* KEYS WILL CAUSE THE *DISPENSE* LED(S) OF THE CORRESPONDING HOPPER TO BLINK AND THE LCD/VFD SCREEN WILL DISPLAY THE STATUS FOR THE INDICATED AUGER AS FOLLOWS:
37. IF THE↓ AND ↑ KEYS ARE PRESSED THE AUGER STATUS WILL TOGGLE BETWEEN "ON" AND "OFF".

AUGER STATUS ON	AUGER STATUS OFF

38. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:

MIX/DUMP STATUS SELECT A KEY

39. PRESSING ANY OF THE *DISPENSE* KEYS WILL CAUSE THE *DISPENSE* LED(S) OF THE CORRESPONDING HOPPER TO BLINK AND THE LCD/VFD SCREEN WILL DISPLAY THE STATUS FOR THE INDICATED MIXER/DUMP VALVE AS FOLLOWS:
40. IF THE↓AND ↑ KEYS ARE PRESSED THE MIXER/DUMP VALVE STATUS WILL TOGGLE BETWEEN "ON" AND "OFF".

MIX/DUMP STATUS ON	MIX/DUMP STATUS OFF

41. IF THE *STOP* KEY IS PRESSED THE LCO/VFD SCREEN WILL DISPLAY ONE OF THE FOLLOWING:
42. IF THE↓AND↑ KEYS ARE PRESSED THE DISPLAYED UNITS WILL TOGGLE BETWEEN "ENGLISH" AND "METRIC".

DISPLAYED UNITS ENGLISH	DISPLAYED UNITS METRIC

43. IF THE *STOP* KEY IS PRESSED THE LCD/VFD SCREEN WILL DISPLAY THE FOLLOWING:

RESET SYSTEM ARE YOU SURE?

44. PRESSING THE↓AND↑ KEYS SIMULTANEOUSLY WILL CAUSE ALL PARAMETERS TO REVERT TO DEFAULT VALUES AND THE MENU TO DISPLAY THE FOLLOWING:

RESET SYSTEM COMPLETED

Definition of Screens during Normal Operation:

1. Initialization Screen
   Definition -This screen is displayed only during the first few seconds after "power-on". The only purpose of this screen is to display the System Software Title (DISPENSER) and Version Number (V #.##).

   CECILWARE
   DISPENSER V #.##

2. Low Water Level Screen
   Definition - This screen is displayed after the Initialization Screen during the initial tilling of the water tank (*first fill).* Once the water in the reservoir tank has reached the appropriate fill level this screen is retired.

   PLEASE WAIT
   LOW WATER LEVEL

3. Low Temperature Lockout Screen
   Definition - This screen is displayed when the Low Temperature Lockout feature is ON and the present water temperature is below the Low Temperature Lockout trip point.

   PLEASE WAIT
   LOW WATER TEMP

4. System Rinse Lockout Screen
   Definition - This screen is displayed when the Rinse Lockout feature is ON and all Hoppers have met the conditions for Rinse Lockout. A Hopper will enter Rinse Lockout when the respective Hopper has dispensed but has not been rinsed for a period of time greater than that defined by the Rinse Lockout Time. Since the system has no method of recording elapsed time during "power-off", the system will place all Hoppers in Rinse Lockout upon "power-on" as a sanitary precaution.

   PLEASE RINSE
   TO CONTINUE

5. Rinse Screen
   Definition - This screen appears when the Rinse Key is pressed while the system is waiting to dispense. If any of the Dispense Keys are pressed while this screen is being displayed the system will rinse the Hopper corresponding to the depressed key. If the Rinse Key is released while a Hopper is being rinsed this screen will remain until the rinse process is complete.

   PRESS AND RELEASE
   TO RINSE

6. Selection Screen
   Definition - This screen is displayed along with a Dispense Screen while the system is waiting to dispense. This screen alternates with a Dispense Screen every three seconds.

   PLEASE SELECT
   CHOICE OF DRINK

7. Portion Control Dispense Screen
   Definition - This screen is displayed while the system is waiting to dispense if the Dispense Mode is set to Portion Control. This screen alternates with the Selection Screen every three seconds.

   PRESS AND RELEASE TO
   DISPENSE

8. Free Flow Dispense Screen
   Definition - This screen is displayed while the system is waiting to dispense it the Dispense Mode is set to Free Flow. This screen alternates with the Selection Screen every three seconds.

   PRESS AND HOLD
   UNTIL 2/3 FULL

9. Rinse Warning Screen
   Definition - This screen appears when the Rinse Warning feature is ON and a Hopper (identified by @) has dispensed but has not been rinsed for a period of time greater than that defined by (50 * Rinse Lockout Time) minutes.
   For example: if the Rinse Lockout Time is 6 Hrs and the Rinse Warning feature is ON then the Rinse Warning will be triggered when a Hopper is not rinsed for 300 minutes (5 hours). Triggering a Rinse Warning will cause the audible alarm to sound for two seconds and the Rinse Warning Screen to be displayed for five seconds. The system will then revert back to normal operation. If the offending Hopper is not rinsed after the first Rinse waning additional Rinse Warnings will be triggered every five minutes until the respective Hopper is rinsed.

   HOPPER #@
   MUST BE RINSED

10. Rinse Lockout Screen
    Definition - This screen appears when a Dispense Key is pressed corresponding to a Hopper (identified by @) that has entered Rinse Lockout. A Hopper will enter Rinse Lockout when the respective Hopper has dispensed but has not been rinsed for a period of time greater than that defined by the Rinse Lockout Time. Once a Hopper enters Rinse Lockout the LED's of the Dispense Keys related to that Hopper will turn OFF thus indicating that the Hopper will no longer dispense.

    HOPPER #@
    MUST BE RINSED

11. High Temperature Lockout Screen
    Definition - This screen is displayed when the present water temperature is 10°F above the water temperature set point.

    PLEASE WAIT
    HIGH WATER TEMP

12. Hopper Status Warning Screen
    Definition - This screen appears when a Dispense Key is pressed corresponding to a Hopper (identified by @) that has been turned OFF. Once a Hopper has been turned OFF the LED's of the Dispense Keys related to that Hopper will turn OFF thus indicating that the Hopper will no longer dispense.

    HOPPER # @
    IS OFF

Definition of ERROR Screens and TROUBLESHOOTING

IF ANY OF THESE ERROR SCREENS COME UP ALSO CHECK THE SAFETY RELAY IN ADDITION TO THE COMPONENT IN QUESTION.

SEE RELAY TEST.

1. Over Temperature Error Screen

!SYSTEM ERROR!
OVER TEMPERATURE

Definition - This screen is displayed and the system is shut down when the present water temperature is sensed higher than 208 °F. **Possible Causes**: *Invalid required Water Temperature or Faulty Water Temperature Sensor.*

2. Water Overflow Error Screen

!SYSTEM ERROR!
WATER OVERFLOW

Definition - This screen is displayed and the system is shut down when the OT/OF Sensor is detecting a rapid change in ambient temperature inside the overflow tube.

Possible Causes: *Faulty fill Solenoid or faulty/disconnected Level Sensor*.

3. No Fill Response Error Screen

!SYSTEM ERROR!
NO FILL RESPONSE

Definition - This screen is displayed and the system is shut down when the Fill Solenoid has been continuously energized (open & filling) for more than five minutes during the First fill or more than 30 seconds thereafter.

Possible Causes: *Water supply is turned OFF or faulty / disconnected Level Sensor.*

4. No Temperature Response Error Screen

!SYSTEM ERROR!
NO TEMP RESPONSE

Definition - This screen is displayed and the system is shut down when the Water Heater has been continuously energized (heating) for more then 30 minutes .thereafter.

Possible Causes: *faulty/disconnected Level Sensor, faulty Water Temperature Sensor, or faulty Water Heater*.

5. Water Heater Error Screen

!SYSTEM ERROR!
WATER HEATER

Definition - This screen is displayed and the system is shut down when the required status (ON/OFF) of the Water Heater does not match the sensed status for more than two seconds.

Possible Causes: *faulty/disconnected Water Heater, faulty/disconnected Triac, or faulty/disconnected Safety Relay*.

6. Fill Solenoid Error Screen - Water Inlet Valve

!SYSTEM ERROR!
FILL SOLENOID

Definition - This screen is displayed and the system is shut down when the required status (ON(OFF) of the Fill Solenoid does not match the sensed status for more than two seconds.

Possible Causes: *Faulty/disconnected Fill Solenoid or faulty/disconnected Safety Relay.*

7. Auger Motor Error Screen

!SYSTEM ERROR!
AUGER MOTOR

Definition - This screen is displayed and the entire system is inoperable when the required status (ON/OFF) of the Auger Motor (identified by @) does not match the sensed status for more than two seconds.

Possible Causes: *Faulty/disconnected Auger Motor.*

8. Dump Solenoid Error Screen - Dispense Valve Error Screen

!SYSTEM ERROR!
DUMP MOTOR # @

Definition - This screen is displayed and the entire system is inoperable when the required status (ON/OFF) of the Dump Solenoid (identified by @) does not match the sensed status for more than two seconds.

Possible Causes: *Faulty/disconnected Dump Solenoid [Dispense Valve] or faulty/disconnected Safety Relay*.

9. Mixer Motor Error Screen

!SYSTEM ERROR!
MIXER MOTOR # @

Definition - This screen is displayed and the entire system is inoperable when the required status (ON/OFF) of the Mixer Motor (identified by §) does not match the sensed status for more than two seconds.

Possible Causes: *Faulty/disconnected Mixer Motor or faulty/disconnected Safety Relay. If Mixer Motor or Relay check out good, manually check for loose connections or defective parts on all 120V ac circuits including: fuse, fuse holder, transformer, hi-limit, and harness*.

Note: IF either the Auger Motor, or Mixer Motor, or Solenoid Error Screen appear: **The entire system is inoperable** this means that one of either the Auger Motor, or Mixer Motor, or Solenoid [Dispense Valve] is **not** functional while that Hopper Status in **ON**.

To continue operating the other Hoppers: Go into Program Mode [by pressing simultaneously the Rinse and Stop keys], then Press RINSE to get the HOPPER STATUS screen. Press ↓ or ↑ key to set the non-functional HOPPER STATUS to **OFF**; Wait at least 10 sec., then Exit program. Reset Power Switch [OFF and ON].

10. High Temperature Lockout Screen

!SYSTEM ERROR!
TEMP SENSOR

Definition - This screen is displayed when the present water temperature is 10 °F above the water temperature set point. **Possible Causes**: *Faulty/disconnected Temperature Sensor*.

11. Over Temperature / Over Flow Error Screen

!SYSTEM ERROR!
OT/OF SENSOR

Definition - This screen is displayed and the system is shut down when the present water temperature is sensed higher than 208 °F. **Possible Causes**: *Faulty/disconnected Over- Temperature/Over-Flow Sensor*.

12. Communications Error Screen

!SYSTEM ERROR!
COMMUNICATIONS

Definition - This screen is displayed and the system is shut down when the Communications Link between the Display Board and the Control Board has been interrupted for more than five seconds and then pa-established.

Possible Causes: *Faulty connection between the Display Board and the Control Board*.

13. Communications Failure Screen

!SYSTEM ERROR!
COM FAILURE V 1.4

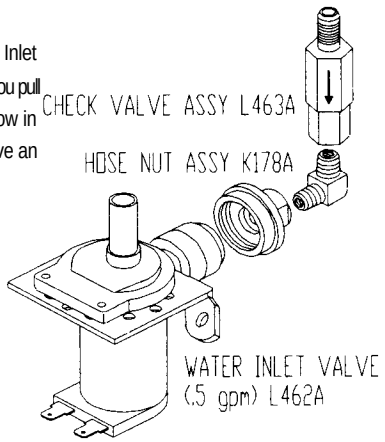
Definition - This screen is displayed and the system is shut down when the Communications Link between the Display Board and the Control Board has been interrupted for more than five seconds.

Possible Causes: *Faulty connection between the Display Board and the Control Board.*

1) Water Inlet Valve Test

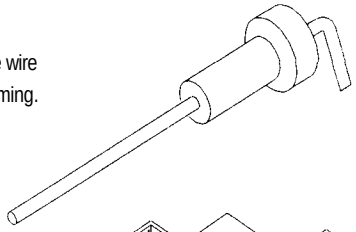
Turn power off. If the water level rises inside the tank, the Water Inlet Valve is leaking. Disconnect wires from the Water Inlet Valve coil and connect a 2 wire line cord to the terminals. Plug it into a 115V outlet. If water flows in and stops when you pull it out, the Valve is working fine. Repeat this test a few times. The problem may be in the Probe. If the water does not flow in when the cord is plugged into an electrical outlet, the Solenoid coil may be damaged, opened or the valve may have an obstruction preventing the water from flowing in. Clean or replace it.

A Check Valve is installed to prevent backflow.
To check proper function of Check Valve, disconnect water line from the Check Valve, check for dripping from the disconnected end of the Check Valve. If it leaks replace it.



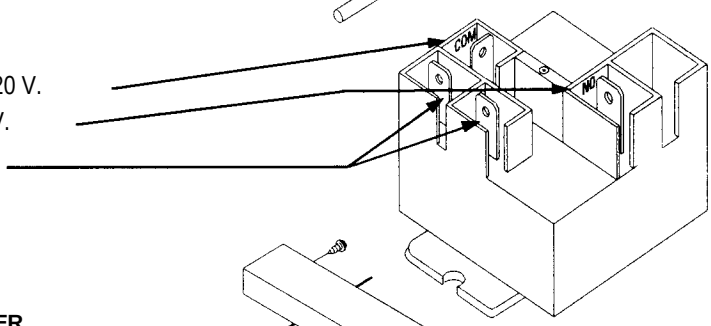
2) Water Level Probe Test

If there is a lack of water, you will get an error message on the LCD window. Check the probe as follows:
Turn on the power and water supply. Check inside the tank to make sure the water is not touching the Probe. Pull the wire and terminal out of the Probe rod. If water starts flowing into the tank, the Probe may be grounded, due to excessive liming. Check with Ohm meter. Clean or replace.

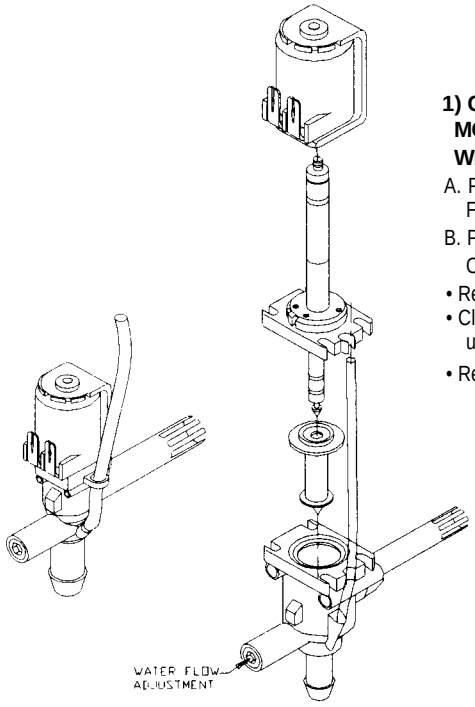


3) Relay Test

Turn power witch on.
Measure Voltage across Output "COM" to Ground. Should read 120 V.
Measure Voltage across Input "NO" to Ground. Should read 120 V.
Measure Voltage across Input to Coil. Should read 24 VDC.

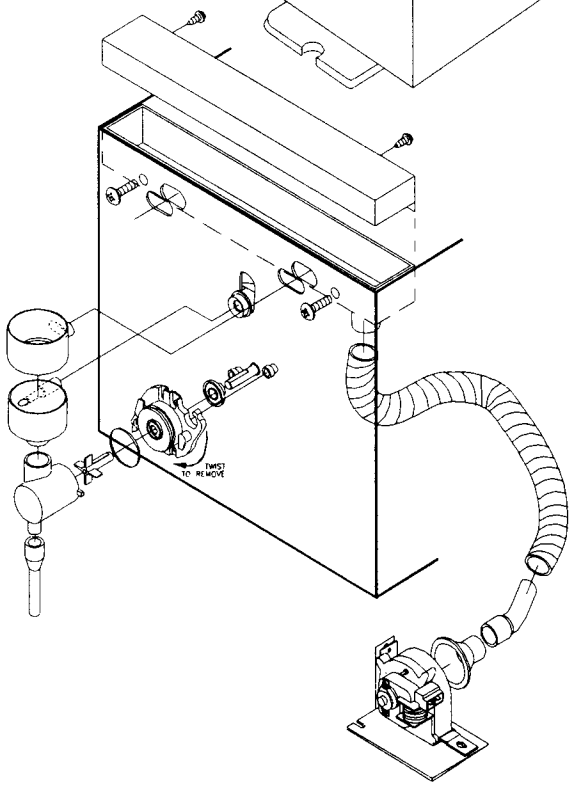


RECOMMENDED PREVENTIVE MAINTENANCE



1) CHECK ALL CHAMBER MOUNTS FOR SIGNS OF WEAR

A. Product Running Down The Front Of The Unit.
B. Product Built Up On The Back Of Chamber Mount.
- Remove Chamber Mount.
- Clean And Re-Lubricate Motor Shaft using Food Grade Lubricant Only
- Replace With New Chamber Mount.



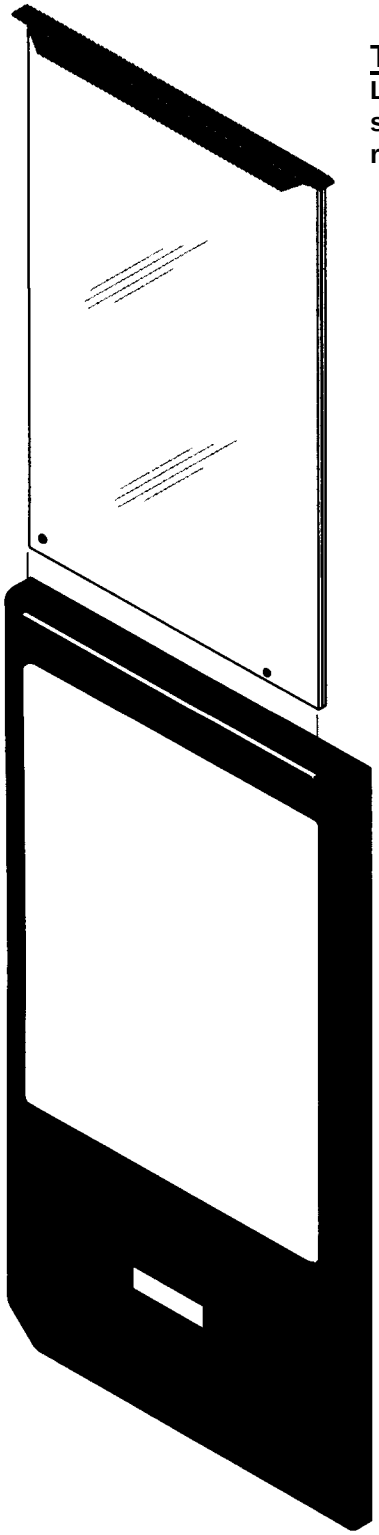
2) CHECK ALL DISPENSE VALVES FOR LIME BUILD UP.

- Drain The Water Tank To Just Below The Level Of The Dispense Valves.
- Remove The Valves And Clean. (You Can Take These Valves Apart By Hand As Shown).
- Replace The Assembly As Needed (L467A).
- Replace The Valve Into The Tank And Refill tank.

3) CLEAN DUT VENT MOTOR, TROUGH AND TUBING.

- Remove Two Screws Holding Trough In Place.
- Clean, And Replace Trough.
- Remove Hose Assembly From The Motor.
- Clean Out And Replace.

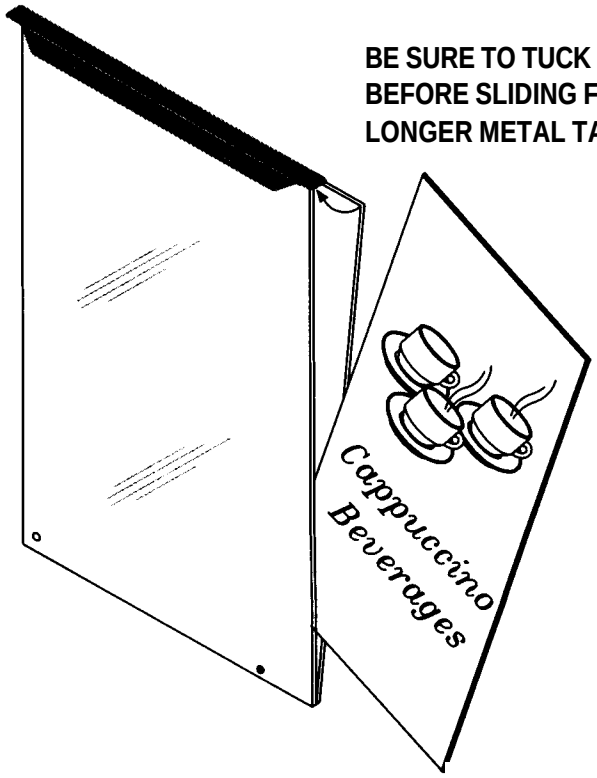
PICTURE/DURATRAN REPLACEMENT and BULB AW STARTER REPLACEMENT • ILL. D



TO REPLACE THE PICTURE / DURATRAN:

Lift up the two end tabs on top of door with a pointed object or flat head screwdriver. Pull the entire picture frame out. Open up the two clear panels and replace picture. Tuck clear plastic panel inside bracket at top.

BE SURE TO TUCK CLEAR PANEL UNDER BRACKET BEFORE SLIDING FRAME ASS'Y INSIDE DOOR. THE LONGER METAL TAB SIDE GOES IN THE FRONT.

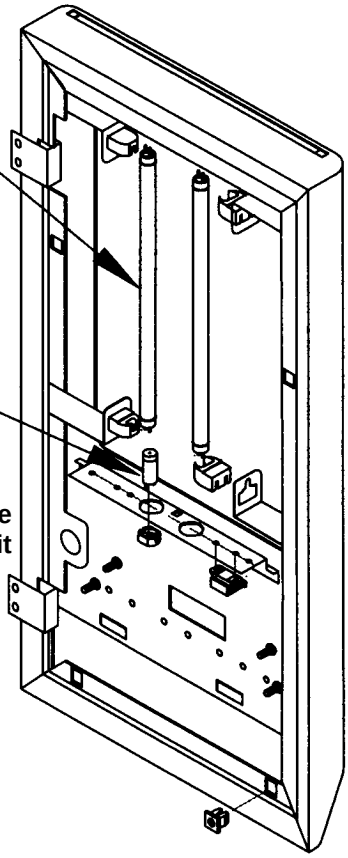


To replace the Fluorescent Bulb:

Remove the inside door panel. Turn the lamp and pull it out of the lamp holder, then place the new lamp into the lamp holder and turn it until it snaps into position.

To replace the Starter:

Remove the inside door panel.
Turn the starter slightly counter-clockwise and take it out of the starter base.
To install the new starter, snap the starter into the starter base and turn it slightly clockwise into position



Sanitizing:

All food dispensing units should be sanitized periodically. All parts to be sanitized must be cleaned first.

To prepare a sanitizing solution:

ADD 2 TSP. OF LIQUID CLOROX BLEACH (5.25% CONCENTRATION) TO 1 GALLON OF WATER AT ROOM TEMPERATURE (70°- 90°F).

Note: Always start with a unopened bottle of Clorox Bleach since the solution from an opened bottle has a short life span.

- Soak all parts for a minimum of 3 min. in the sanitizing solution.
- Let all sanitized parts drain and dry naturally. DO NOT WIPE THEM DRY.
- Before using the sanitized unit (or parts) with food stuffs, rinse all parts thoroughly with water.

Water pipe connecting and fixtures directly connected to a potable water supply shall be sized, installed, and maintained in accordance with Federal, Sate, and Local codes (section 7).

Cleaning

1. Turn the power switch to OFF.
2. Remove the drip tray with grill and empty the contents.
3. Wash and let dry the tray and grill (use a mild dishwasher detergent).
4. Wash and let dry the dispense area.
5. Turn the power switch to ON.

Cleaning the Hoppers (See Illustration E)

1. Open the cabinet door and raise the top cabinet lid.
2. Take the hopper out of the cabinet.
3. Pull off the elbow chute and remove the hopper cover.
4. Unscrew the auger gear CW while holding steady the auger inside the hopper. Take out the auger, agitator wheel, and spring.
5. Rinse each item thoroughly.
6. Let dry all items and reassemble.

Filling the Hoppers

1. Open the cabinet door, raise the top cabinet lid.
2. Fill each hopper with the correct product. **Note: Hoppers can also be removed for filling.**
3. Reposition hoppers in the hopper compartment, making sure the hoppers are properly seated.

Flushing the Whipper Chamber

1. Open *the cabinet door and turn the RINSE switch to ON.*
2. *Place a container under each dispense nozzle and push the dispense switches. Note: On manual dispense machines, push and hold the dispense buttons for 10 seconds.*
3. *Open the cabinet door and turn the Rinse switch back to OFF.*
4. *Wash and let dry the splash panel.*
5. *Remove the drip tray, wash and let dry thoroughly.*

Removing and Cleaning the Whipper Chambers (See Illustration E)

1. *Remove the dispense cap by pulling it forward and at the same time twisting it clockwise.*
2. *Grab and pull the mixing bowl out of the mixing bowl socket.*
3. *Grab and twist the whipping chamber clockwise and pull it off the mounting plate.*
4. *Pull the Whipper blade off the motor shaft. Notice the flat keyway on the shaft and the matching keyway inside the Whipper blade shaft.*

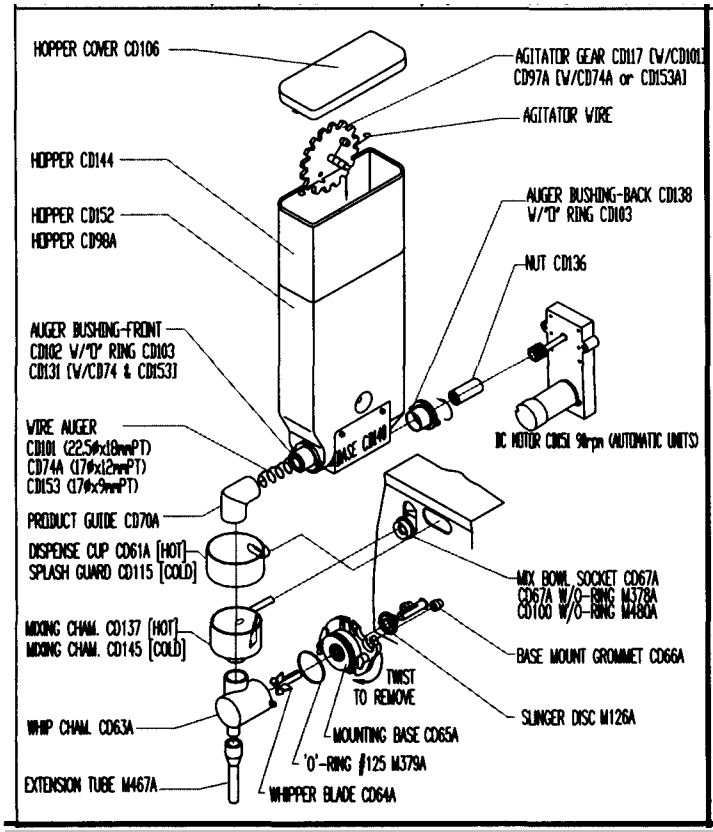
   It is important that these two keyways are lined up when re-assembling the components.
5. *Twist the mounting plate clockwise and pull it off the motor shaft.*
6. *Slip off the o-ring from the Whipper chamber mounting plate and clean o-ring and o-ring seat.*

Removing and Cleaning the Mixing Chambers (See Illustration E)

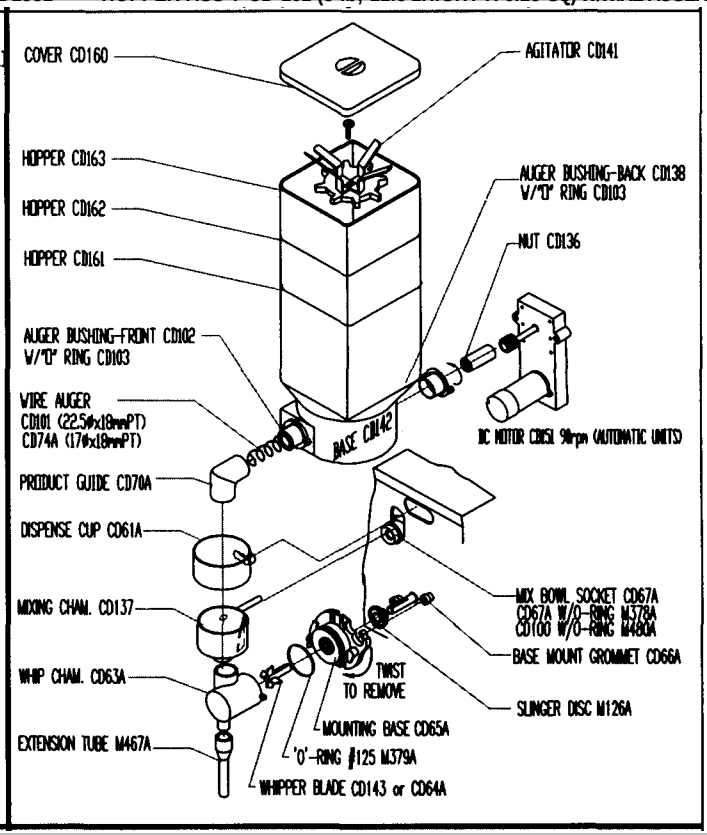
1. *Remove the dispense cap.*
2. *Pull the mixing bowl out of the mixing bowl socket.*
3. *Take out the extension tubes.*

HOPPER ASSEMBLIES WITH WIRE AUGERS ILL. E

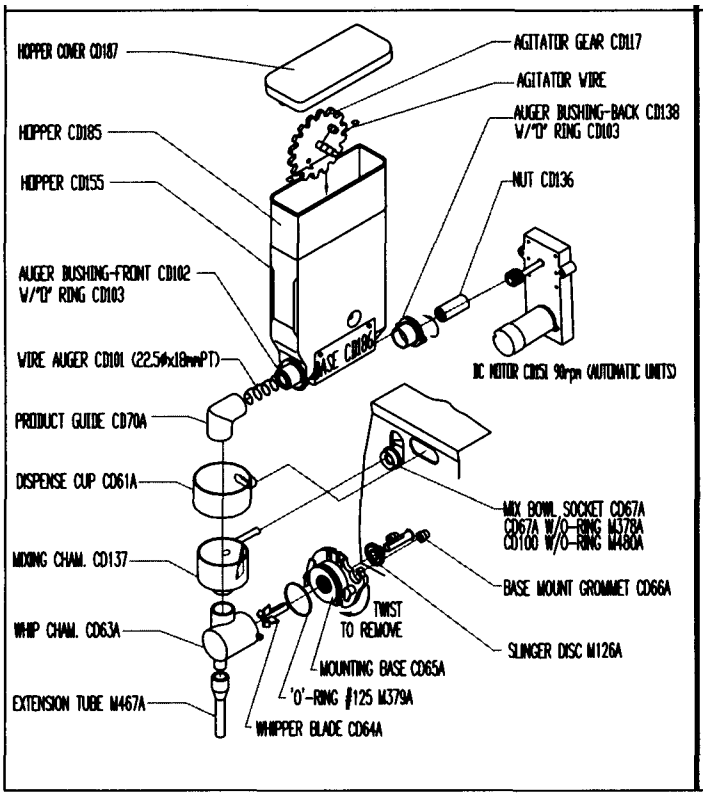
HOPPER ASS'Y CD144,5.5 LB. 14-HIGHT x 3-W. W/WIRE AUGER CD101
HOPPER ASS'Y CD152,4 LB, 11.5"HIGHT x 3-W, W/WIRE AUGER CD1011
HOPPER ASS'Y CD98A. 4 LB.11.5"HIGHTx3"W.W/WIRE AUGER CD74A or CD1531


HOPPER COVER CD106
AGITATOR GEAR CD117 (W/CD101) CD97A (W/CD74A or CD153A)
AGITATOR WIRE
HOPPER CD144
HOPPER CD152
HOPPER CD98A
AUGER BUSHING-BACK CD138 W/"O" RING CD103
NUT CD136
AUGER BUSHING-FRONT CD102 W/"O" RING CD103 CD131 (W/CD74 & CD153)
WIRE AUGER CD101 (22.5Øx18mmPT) CD74A (17Øx12mmPT) CD153 (17Øx9mmPT)
BASE CD140
IC MOTOR CD151 98rpm (AUTOMATIC UNITS)
PRODUCT GUIDE CD70A
DISPENSE CUP CD61A (HOT) SPLASH GUARD CD115 (COLD)
MIX BOWL SOCKET CD67A CD67A W/O-RING M378A CD100 W/O-RING M480A
MIXING CHAM. CD137 (HOT) MIXING CHAM. CD145 (COLD)
BASE MOUNT GROMMET CD66A
TWIST TO REMOVE
SLINGER DISC M126A
WHIP CHAM. CD63A
MOUNTING BASE CD65A
'O'-RING #125 M379A
EXTENSION TUBE M467A
WHIPPER BLADE CD64A

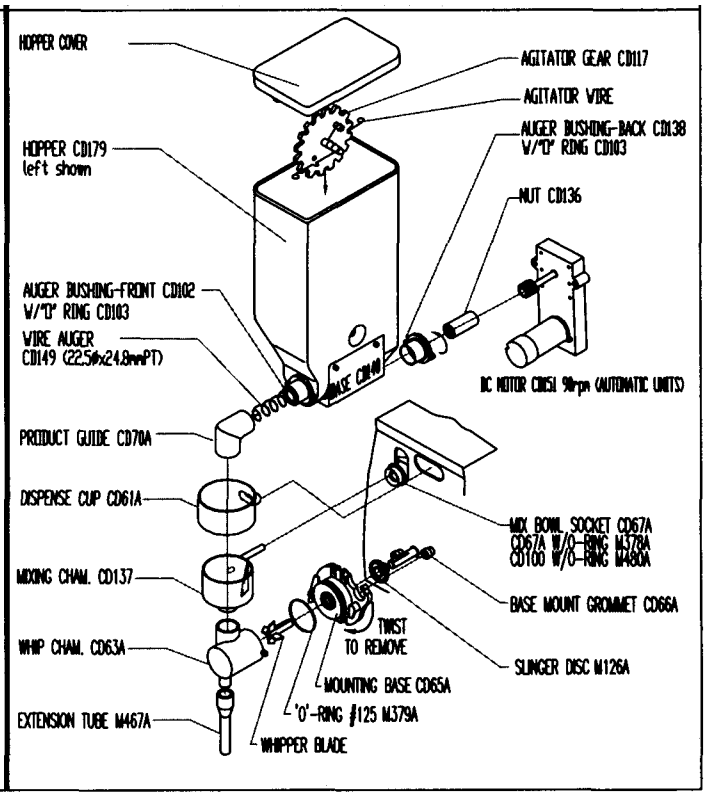
HOPPER ASS'Y CD163 (14 lb; 18"H IGHT X 6.25-SQ) W/WIRE AUGER
HOPPER ASS'Y CD162 (11 lb; 14-HIGHT X 6.25"SQ) W/WIRE AUGER
HOPPER ASS'Y CD 161 (8 lb; 11.5-1HIGHT X 6.25-SQ) W/WIRE AUGER



HOPPEB ASS'Y CD185,4.5LB, 14-HIGHT x 2.5-W, W/WIRE AUGER
HOPPER ASS'Y CD155,4 LB, 12.5-HIGHT x 2.5-W, W/WIRE AUGER

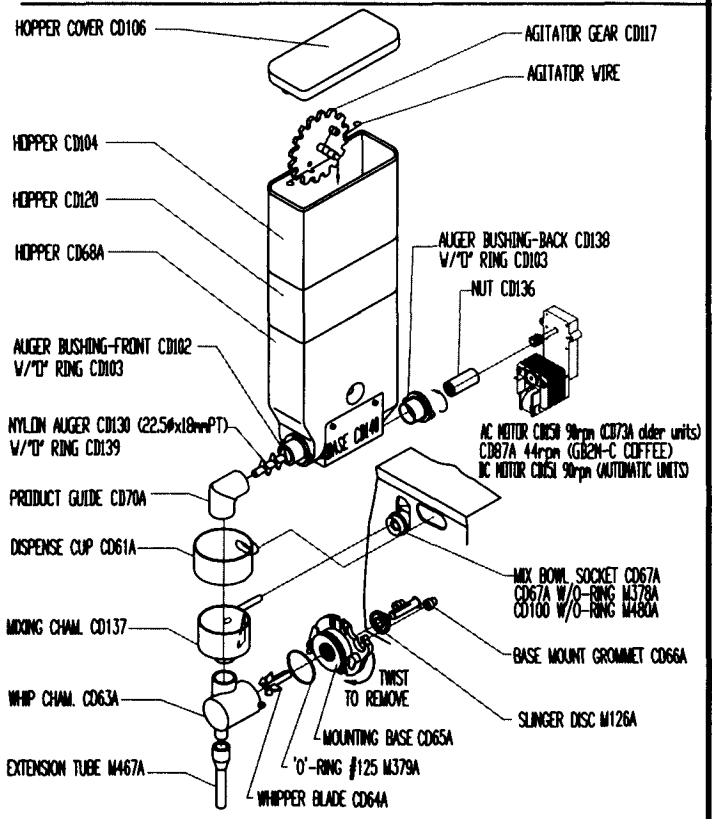


P-HOPPER ASSTCD178 (LEFT) ID LB. 14-HIBHT, W/WIRE AUGER
P-HOPPER ASS'Y CD180 (RIGHT) TO LB, 14-HIGHT, W/WIRE AUGER

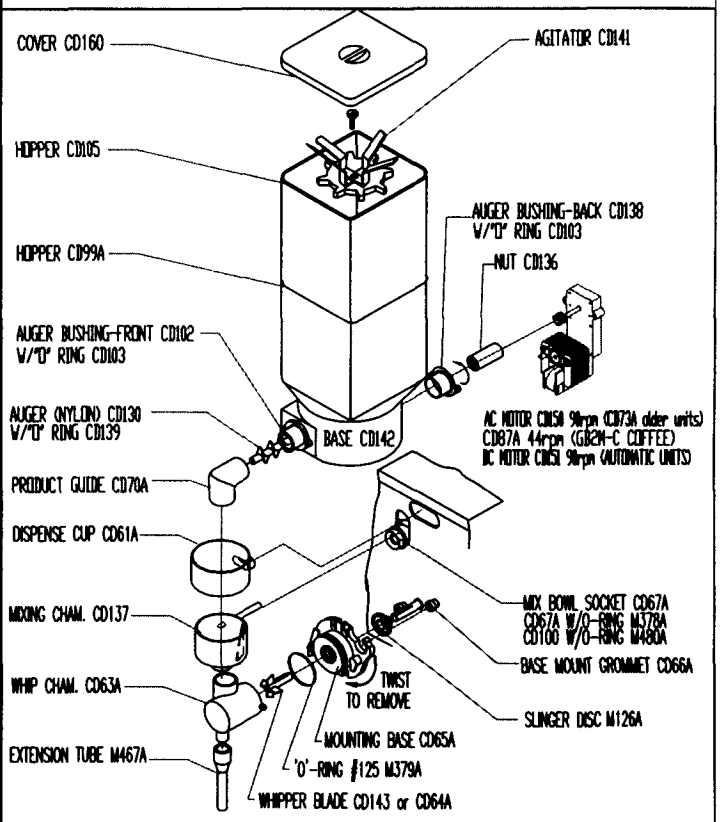


HOPPER and DISPENSING CHAMBER ASS'Y WITH NYLON AUGERS - ILL. E

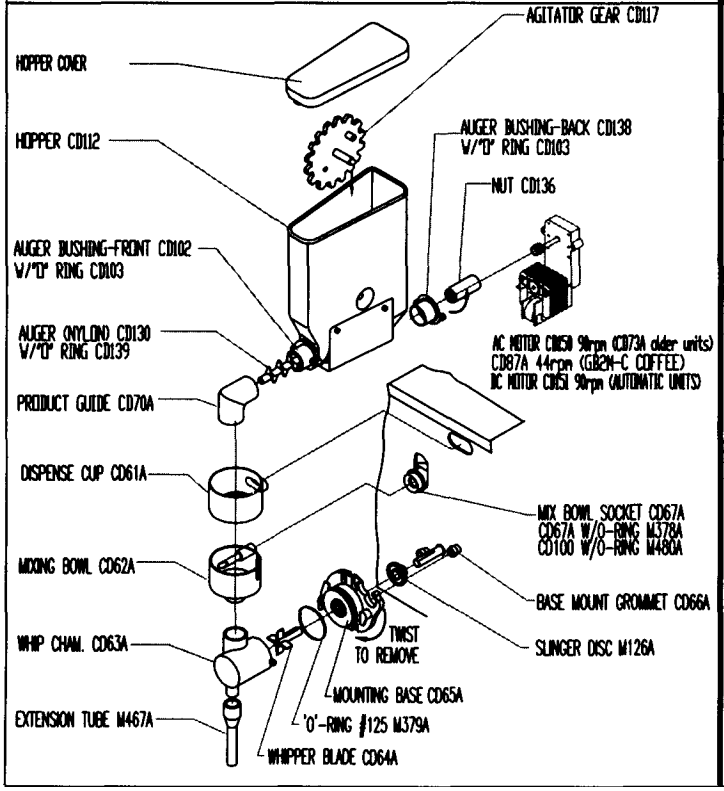
HOPPER ASS'Y CD104, 7 LB, 18"HIGHT x 3"W, W/NYLON AUGER
HOPPER ASS'Y CD120, 5.5 LB, 14"HIGHT x 3"W, W/NYLON AUGER
HOPPER ASS'Y CD68A, 4 LB, 11.5"HIGHT x 3"W, W/NYLON AUGER


HOPPER COVER CD106
AGITATOR GEAR CD117
AGITATOR WIRE
HOPPER CD104
HOPPER CD120
HOPPER CD68A
AUGER BUSHING-BACK CD138 W/"O" RING CD103
NUT CD136
AUGER BUSHING-FRONT CD102 W/"O" RING CD103
NYLON AUGER CD130 (22.5"x18mmPT) W/"O" RING CD139
BASE CD140
AC MOTOR CD150 9Rrpm (CD73A older units) CD87A 44rpm (GB2M-C COFFEE) DC MOTOR CD151 9Rrpm (AUTOMATIC UNITS)
PRODUCT GUIDE CD70A
DISPENSE CUP CD61A
MIX BOWL SOCKET CD67A CD67A W/O-RING M378A CD100 W/O-RING M480A
MIXING CHAM. CD137
BASE MOUNT GROMMET CD66A
WHIP CHAM. CD63A
TWIST TO REMOVE
SLINGER DISC M126A
MOUNTING BASE CD65A
EXTENSION TUBE M467A
'O'-RING #125 M379A
WHIPPER BLADE CD64A

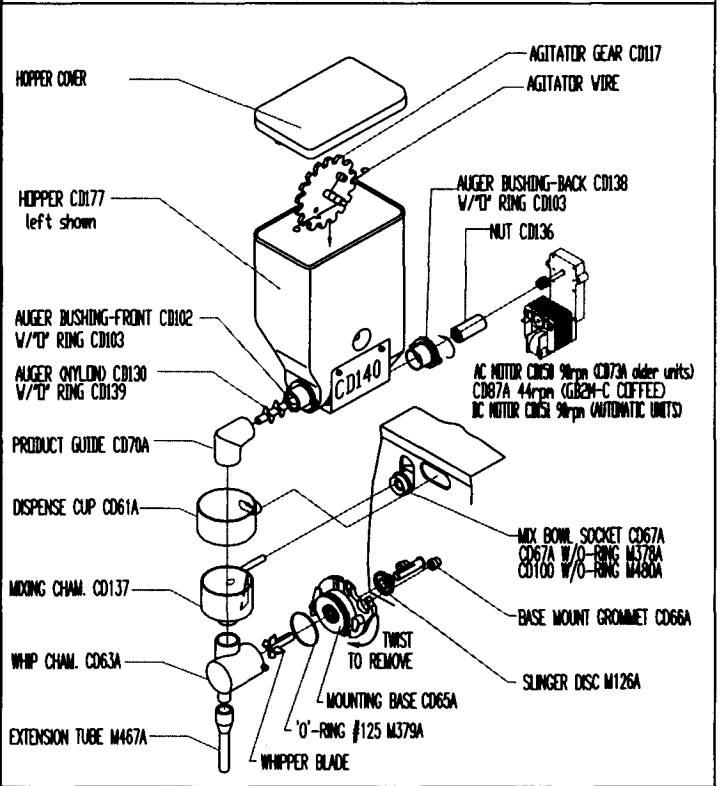
HOPPER ASS'Y CD105 (14 lb; 18"H IGHT X 6.25"SQ) W/NYLON AUGER
HOPPER ASS'Y CD99A (8 lb; 11.5"]HIGHT X 6.25"SQ) W/NYLON AUGER


COVER CD160
AGITATOR CD141
HOPPER CD105
HOPPER CD99A
AUGER BUSHING-BACK CD138 W/"O" RING CD103
NUT CD136
AUGER BUSHING-FRONT CD102 W/"O" RING CD103
AUGER (NYLON) CD130 W/"O" RING CD139
BASE CD142
AC MOTOR CD150 9Rrpm (CD73A older units) CD87A 44rpm (GB2M-C COFFEE) DC MOTOR CD151 9Rrpm (AUTOMATIC UNITS)
PRODUCT GUIDE CD70A
DISPENSE CUP CD61A
MIX BOWL SOCKET CD67A CD67A W/O-RING M378A CD100 W/O-RING M480A
MIXING CHAM. CD137
BASE MOUNT GROMMET CD66A
WHIP CHAM. CD63A
TWIST TO REMOVE
SLINGER DISC M126A
MOUNTING BASE CD65A
EXTENSION TUBE M467A
'O'-RING #125 M379A
WHIPPER BLADE CD143 or CD64A

HOPPER ASS'Y CD112, 3 LB, 12.625"HIGHT x 1.5"-2.5"W, W/NYLON AUGER
OLDER CONFIGURATION FOR HOPPER AND CHAMBERS


AGITATOR GEAR CD117
HOPPER COVER
HOPPER CD112
AUGER BUSHING-BACK CD138 W/"O" RING CD103
NUT CD136
AUGER BUSHING-FRONT CD102 W/"O" RING CD103
AUGER (NYLON) CD130 W/"O" RING CD139
AC MOTOR CD150 9Rrpm (CD73A older units) CD87A 44rpm (GB2M-C COFFEE) DC MOTOR CD151 9Rrpm (AUTOMATIC UNITS)
PRODUCT GUIDE CD70A
DISPENSE CUP CD61A
MIX BOWL SOCKET CD67A CD67A W/O-RING M378A CD100 W/O-RING M480A
MIXING BOWL CD62A
BASE MOUNT GROMMET CD66A
WHIP CHAM. CD63A
TWIST TO REMOVE
SLINGER DISC M126A
MOUNTING BASE CD65A
EXTENSION TUBE M467A
'O'-RING #125 M379A
WHIPPER BLADE CD64A

P - HOPPER ASS'Y CD177 (LEFT) 8 LB, 11.5" HIGHT, W/NYLON AUGER
P - HOPPER ASS'Y CD178 (RIGHT) 8 LB, 11.5" HIGHT, W/NYLON AUGER

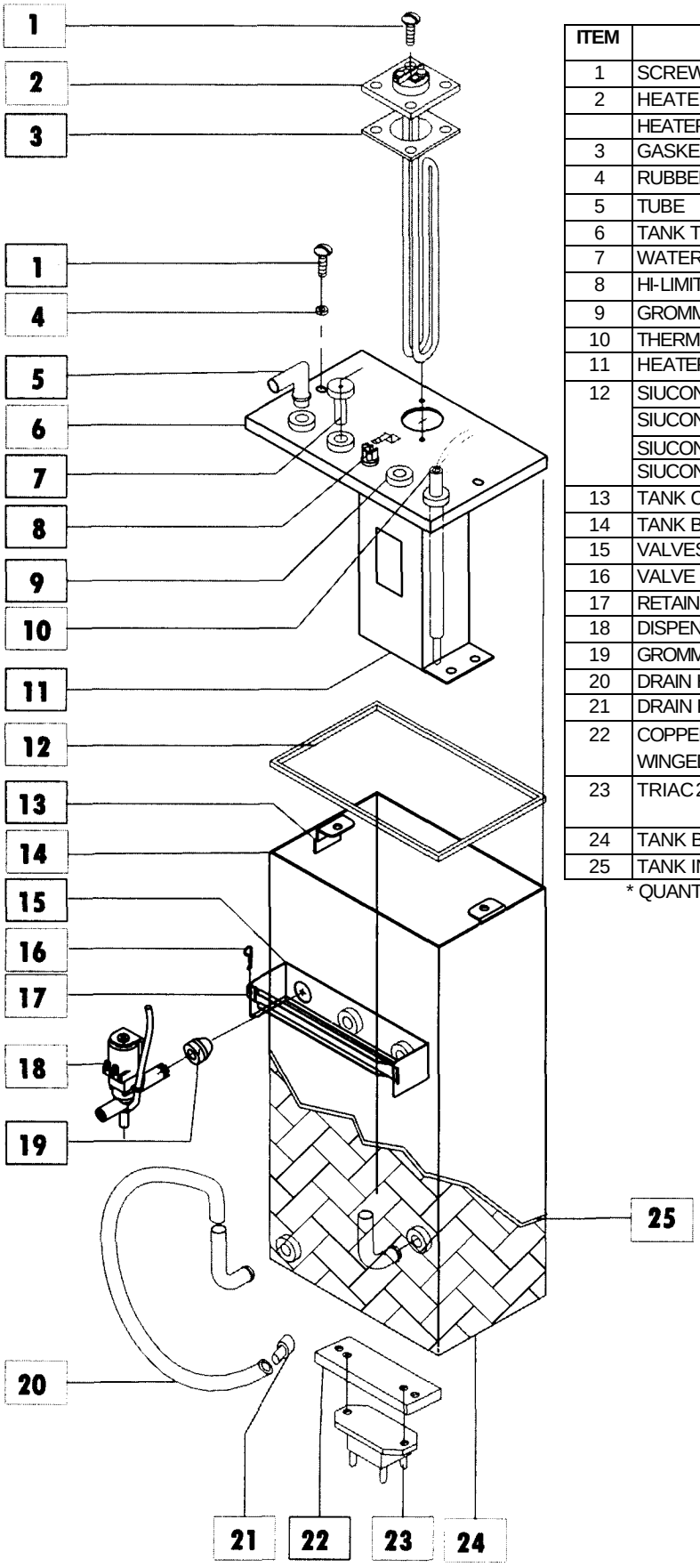

HOPPER COVER
AGITATOR GEAR CD117
AGITATOR WIRE
HOPPER CD177 left shown
AUGER BUSHING-BACK CD138 W/"O" RING CD103
NUT CD136
AUGER BUSHING-FRONT CD102 W/"O" RING CD103
AUGER (NYLON) CD130 W/"O" RING CD139
CD140
AC MOTOR CD150 9Rrpm (CD73A older units) CD87A 44rpm (GB2M-C COFFEE) DC MOTOR CD151 9Rrpm (AUTOMATIC UNITS)
PRODUCT GUIDE CD70A
DISPENSE CUP CD61A
MIX BOWL SOCKET CD67A CD67A W/O-RING M378A CD100 W/O-RING M480A
MIXING CHAM. CD137
BASE MOUNT GROMMET CD66A
WHIP CHAM. CD63A
TWIST TO REMOVE
SLINGER DISC M126A
MOUNTING BASE CD65A
EXTENSION TUBE M467A
'O'-RING #125 M379A
WHIPPER BLADE

TROUBLESHOOTING GUIDE

WARNING: To reduce the risk of electrical shock unplug the dispenser power cord before repairing or replacing any internal components of

PROBLEM	*PROBABLE CAUSE*	*REMEDY*
1. Light Display not lit. No Power	a) Dispensing unit unplugged b) No power from Main Board or from Power Switch c) Defective Bulb. d) Loose Bulb in socket. e) Defective Ballast.	a) Reconnect dispensing unit. b) Check for loose wire to Main Board or to Power Switch. c) Replace Bulb. d) Make sure bulb is seated properly in socket. e) Replace Ballast.
2. No water when Rinse Switch is ON.	a) Water supply OFF. b) Clogged inlet screen (Water Inlet Valve). c) Inoperative Water Inlet Valve.	a) Turn water ON. b) Disconnect water line and clean inlet screen. c) Check connection, if needed replace Valve.
3. No product when Dispense Button is pressed.	a) No product in Hopper. b) Auger not working. c) Damaged, loose, or missing Agitator Gear. d) Inoperative Auger Motor. e) Hopper outlet clogged.	a) Add product. b) Engage Hopper/Nut to Motor Gear (see Ill. E). c) Replace Agitator Gear (see Ill. E). d) Check connections of Motor, if needed replace such components. e) Clean Hopper and check Cartridge Heater.
4. Water does not shut off. Water keeps dispensing.	a) Leaking Solenoid [Water Inlet Valve]. b) Inoperative Switches on Touch Pad. c) Inoperative Rinse Switch - Touch Pad	a) Clean/check fittings of Valve. Replace Valve if needed. See "Water Inlet Valve Test" b) Check Touch Pad connections. Replace Touch Pad if needed.
5. No water is going into tank at all.	a) Water Inlet Valve malfunction. b) Probe malfunction.	a) Check Solenoid valve. Replace if necessary. See “Water Inlet Valve Test” b) Check Probe. Replace if necessary. See “Probe Test.”
6. Water will not Stop flowing into	a) Water Level Probe malfunction. b) Solenoid (Water Inlet Valve) malfunction.	a) Check Probe. Replace if necessary. See “Probe Test.” b) Check Solenoid valve. Replace if necessary. See “Water Inlet Valve Test”
7. Water is not Heating up in the Water tank.	a) Temperature setting is incorrect. b) Loose connection to Heating element. c) Heater is burned out or defective.	a) Set Temperature at 195° F – See Programming Instructions b) Make sure all wires are tight. c) Replace the Heater.
9. Water drips mixing chamber	a) Leaking Water Dispense Valve i) Too much water in tank. c) Mixing Chamber clogged. d) Water Valve blocked by scales.	a) Replace Water Dispense (Dump) Valve b) Dispense some water from tank. c) Clean Mixing Chamber. d) Replace or clean Valve seat.
10. Cold Drink	a) Run out of hot water. b) Temperature setting is incorrect. c) Loose electrical connection d) Bad Heating element or Heater is burned out.	a) Allow time for water in tank to heat after filling. b) Set temperature at 195° F – (See Programming Instructions) c) Check all electrical connections for contact. d) Replace Heater. (see Item 11 on Tank Ass’y Ill. H).
11. Drink too strong	a) Water flow too low b) Product throw too high	a) Adjust water flow rate (see III. B) b) Adjust Gram Throw, (see Programming Instructions)
12. Drink too Weak.	a) No product in hopper. b) Product throw too low c) Water flow too high.	a) Add product. b) Adjust Gram Throw (see Programming Instructions) c) Adjust water flow rate (see Ill. B)
13. Drink not whipped.	a) Whipper Blade missing. b) Loose electrical connection to motor. c) Whipper Motor defective.	a) Replace Whipper Blade b) Check electrical connections to motor. c) Replace Whipper Motor.
14. Dispenser repeats cycle.	a) Touch Pad defective. b) Power [Dispense] Relay stuck.	a) Replace Touch Pad. b) Replace Relay.
15. Noise coming from mixing chamber	a) Whipper blade not properly aligned or missing.	a) Check blade alignment, if needed replace blade and mixing chamber.
16. Grinding noise coming from unit.	a) Hopper not properly engaged in back, or Hopper not seated properly.	a) Check the mating between the auger motor’s gear And hopper’s coupling/nut. Check also pin in base. Pin must be dropped into hole in base.
17. Banging or clicking noise coming from hoppers	a) One or more Hoppers are empty or almost empty.	a) Fill Hoppers with product.

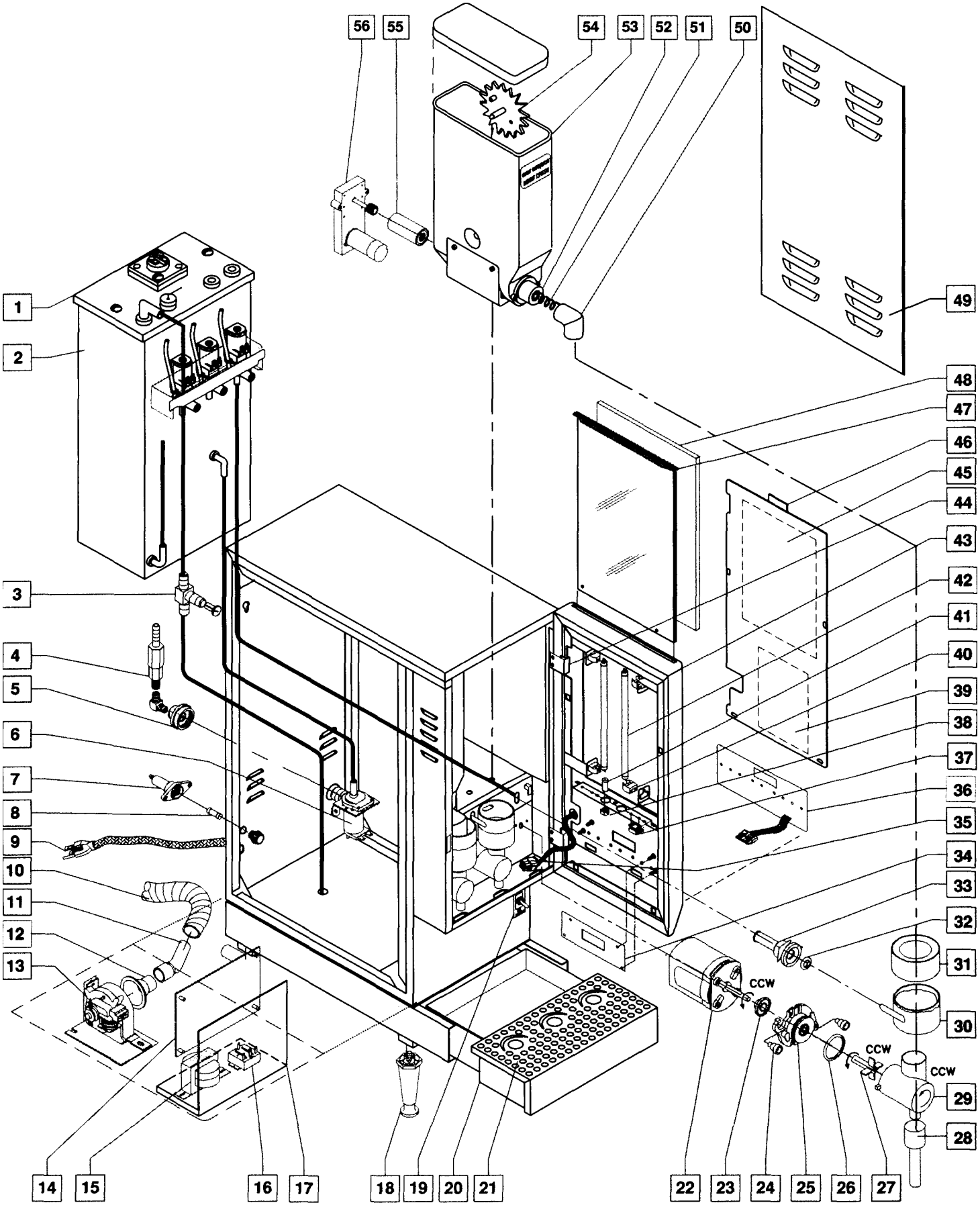
TANK ASSEMBLY CONFIGURATION - ILL. F



ITEM	DESCRIPTION	PART NO	QTY
1	SCREW, S.S., 1/4 - 20 x 5/8	P465A	3
2	HEATER, 120V 1700W	G267A	1
	HEATER, 240 V, 3000W	G266A	1
3	GASKET, TANK HEATER	M502A	1
4	RUBBER GASKET, FOR SCREW (ITEM 1 P446A)	M533A	2
5	TUBE	K525A	3
6	TANK TOP (SEE METAL PARTS IDENT. LIST)	RY98A	1
7	WATER LEVEL PROBE [K402A 4- P410A]	K355Q	1
8	HI-LIMIT [TEMP.]	L573A	1
9	GROMMET PLUG (.466 ID) F/ TESTING TEMP.	M494A	1
10	THERMISTER PROBE IL616A-PROBE, L617A-SIUCONE	L617Q	1
11	HEATER DUCT HOUSING	RJ82A	1
12	SIUCONE BUTT SPUCED GASKET (GB2MD)	M498A	1
	SIUCONE BUTT SPUCED GASKET (GB3MD)	M499A	1
	SIUCONE BUTT SPUCED GASKET (G84MD)	M500A	1
	SIUCONE BUTT SPUCED GASKET (GB5MD)	M473A	1
13	TANK COVER BRACKETS	RI42A	1
14	TANK BODY	R138A	-
15	VALVES RETAINER BRACKET	RT02A	1
16	VALVE COTTER PIN	04025	1
17	RETAINER CUP	RT09A	1
18	DISPENSE VALVE (DUMP)	L467A	3 *
19	GROMMET (.466 ID)	M461A	9 *
20	DRAIN HOSE, SIUCONE	M483A	1
21	DRAIN PLUG	M391A	1
22	COPPER PLATE- HEAT SINK FOR TRIAC	K624A	1
	WINGED NUT F/MOUNTING PLATE TO TANK	P301A	2
23	TRIAC 25 AMP SCREW	L615A	1
		P182A	2
24	TANK BOTTOM	RI40A	1
25	TANK INSULATION MATERIAL	M183A	1

* QUANTITY SHOWN IS FOR GB3, QUANTITY VARIES FOR EACH UNIT.

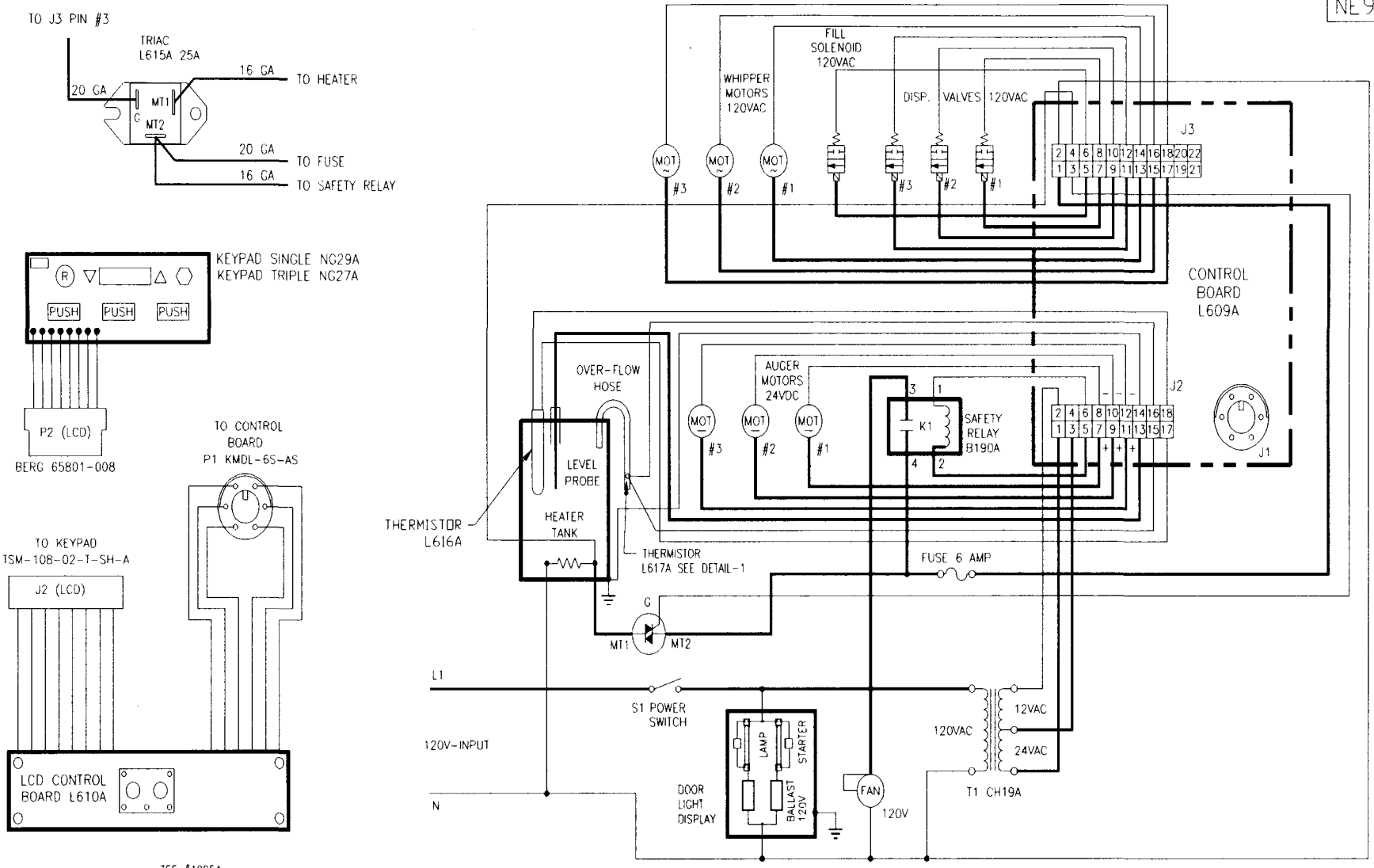
GB3M-5.5- IT DESCRIPTION AND LOCATIDN OF COMPONENTS – ILL. G

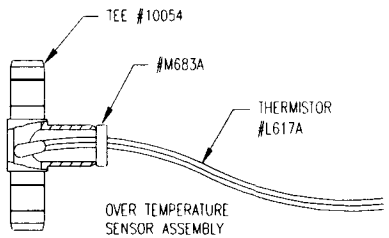


GBM.5.5.1T COMMON PARTS IDENTIFICATION LIST

ITEM	DESCRIPTION	GB1f2M-IT	GB3M-5.5-IT	GB3M-5.5-IT 11.5"WAWA	GB415M-IT
1	TANKTOP ASSY	?	RY98Q	RY8BH	RJ860
2	TANK WELDMENT ASS'Y	?	RI38Q	B1380	BJ85Q
3	THERMISTER ASS'Y [FOR HI-TEMP. & WATER OVERFLOW)]	LB17Q	L617Q	L6170	L617Q
4	CHECK VALVE [PREVENTS BACKFLOW]	L463A	L463A	L463A	L463A
5	HOSE NUT ASS'Y	K178A	K178A	K178A	K178A
6	WATER INLET VALVE	L462A	L462A	L462A	L462A
7	FUSE HOLDER (120/240V only)	C396A	C396A	C396A	G396A
8	FUSE BUSSMAN SC15 (120f240V only) or STEPDOWN TRANSFORMER (240(120V only)	CE181 /CE187	CE181/CE187	CE181/CE187	CE181/CE187
9	POWER CORD	C035A	C035A	C035A	C035A
10	DUCT HOSE [FANEXAUST](16- X 1'0)	C0214	CD214	CD214	CD214
11	ELBOW INSERT [USE W/FAN CD56A ONLY]	CD108	CD108	CD108	-
12	FAN CUP [USE W/MOUNTING CLIP RA67A] [USE W/FAN CD56A ONLY]	CD57A	CD57A	CD57A	-
13	FAN [GB1,2,3 CD56A] [GB4,5 CD224 110-115V, 60HZ, 110cu.m/hr., AC]	CD56A	CD56A	CD56A	CD224
14	MAIN CONTROL BOARD	L609A	L609A	L609A	L627A
15	TRANSFORMER [use w/DC motor CD151]	CH19A	CH19A	CH19A	CH19A
16	RELAY, SAFETY	B190A	B190A	B190A	B190A
17	FLOOR BRACKET, FOR MAIN CONTROL BOARD, TRANSFORMER, & RELAY MOUNTING	RY69A	RY69A	RY69A	SA57A
18	4'LEGSM172A OR T FEET M042A (SET OF 4)	M172A/M042A	M172A/M042A	M172A/M042A	M172A/M042A
19	POWER SWITCH (120 V) OR [120/240 V USE L299A]	L069A	L069A	L069A	L069A
20	DRIP TRAY PAN -METAL	RT61A/RI11A	RT82A	R004A	RH05A/RJ53A
21	DRIP TRAY GRILL - METAL	RI23A/Rt18A	RT69A	R007A	R120A/RJ56A
22	WHIPPER MOTOR short shaft	CD75A	CD75A	C075A	CD75A
23	SLINGER DISC	CD124	CD124	CD124	CD124
24	GROMMET CHAMBER MOUNTING	CD66A	CD66A	CD66A	CD66A
25	CHAMBER MOUNT [USE BAR FOR COFFEE]	CD65A	CD65A	C065A	CD65A
26	"0'RING #125 (used w/grommet CD66A)	M379A	M379A	M379A	M379A
27	WHIP BLADE • WITH STRAIGHT PROPELLERS OR (CD143 W/ BEV.PROP.]	CD64A	CD64A	CD64A	CD64A
28	EXTENSION TUBE [PLASTIC (STAINLESS STEEL]	M467A+H306A	M467A+H306A	M467A+H306A	M467A+H306A
29	WHIP CHAMBER	CD63A	CD63A	CD63A	CD63A
30	MIXING CHAMBER W/TRIANGLE WING [ALTERNATE CD62A W/RECTANGULAR WING]	CD137	CD137	GD137	CD137
31	DISPENSE CAP OR SPLASH GUARD	CD61A	CD61A	CD61A	CD61A
32	"O" RING (#110) (used w/socket CD67A)	M378A	M378	M378A	M378A
33	MIXING BOWL SOCKET (was CD100 W/0 RING M480)	CD67A	GD67A	CD67A	CD67A
34	DISPLAY BOARD + LCD WINDOW	L810A+L620A	L610A+L620A	L610A+L620A	L628A+L620A
36	DOOR HARNESS + DOOR CABLE	CH18A+CH1BA	CH18A+GH16A	CH18A+CH16A	CH18A+CH16A
	CABINET HARNESS	?	CH17A	CH17A	CH52A
36	TOUCH PAD TRIPPLE - CAPPUCCINO ONLY	——	NG27A	NG27A	——
	SINGLE - SOUP & CAPPUCCINO	NG77AING78A	NG29A	NG29A	NG72AING74A
37	BALLAST [MOUNTED INSIDE DOOR]	CE221	CE221	CE221	CE221
38	STARTER BASE (for lamp inside door)	B128A	B128A	B128A	B128A
39	CLEANING INSTRUCTIONS	N973A	N978A	N978A	N978A
40	LAMP HOLDER	CE220	CE220	CE220	CE220
41	STARTER, TYPE FS - 5. 5-6-8 WATT	L396A	L396A	L396A	L396A
42	BULB, TYPE F8T5/CW	CE76A	CE76A	CE76A	CE76A
43	DOOR ASSEMBLY - RIGHT HINGED DOOR) LEFT HINGED DOOR	?	RX420	RY89Q/RY91Q	SA160/RZ90Q
44	DOOR HINGE [HIDDEN]	K618A	K618A	K618A	K618A
46	PROGRAMMING INSTRUCTIONS	NH06A	NH06A	NH06A	NH06A
46	DOOR INSIDE PANEL	?	RY95A	RY96A	SA17A/RZ89A
47	PICTURE/DURATRAN FRAME ASS'Y [MB74A CLEAR PANEIS (2).040": RX4SA BRACKET, + EYELETS]	?	RX48Q	RX480	RZ91A
48	CLEAR WINDOW PANEL [1/8"]	?	M673A	M873A	M703A
49	SIDE PANELS	RG48A	RG48A	RG48A	RG48A
50	PRODUCT GUIDE	CD70A	CD70A	CD70A	CD70A
51	AUGERNYLON CD130 [22.5MMI) X 18MM PT] [FOR CAPPUCCINO] OR	CD130	C0130	GD130	GD130
	AUGER WIRE CD101 (22.5MM8 X 18MM PT] (FOR SOUP]	CD101	CD101	CD101	CD101
52	AUGER BUSHING, FRONT [STD] WFO'RING CD103	CD102	CD102	GD102	CD102
53	CANISTER ASS'Y WITH COVER [W<NYLON AUGER] OR WITH COVER [W/WIRE AUGER)	CD120/CD144	CD120/CD144	CD120/CD144	CD120/C0144
54	AGITATOR (GEAR)	CD117	CD117	CD117	CD117
55	FLANGE (NUT)	CD136	CD136	CD136	CD136
56	DC AUGER MOTOR 90 RPM CD151 [W/SCREW P443A]	CD151	CD151	CD151	CD151

NE94A





DETAIL 1

120V

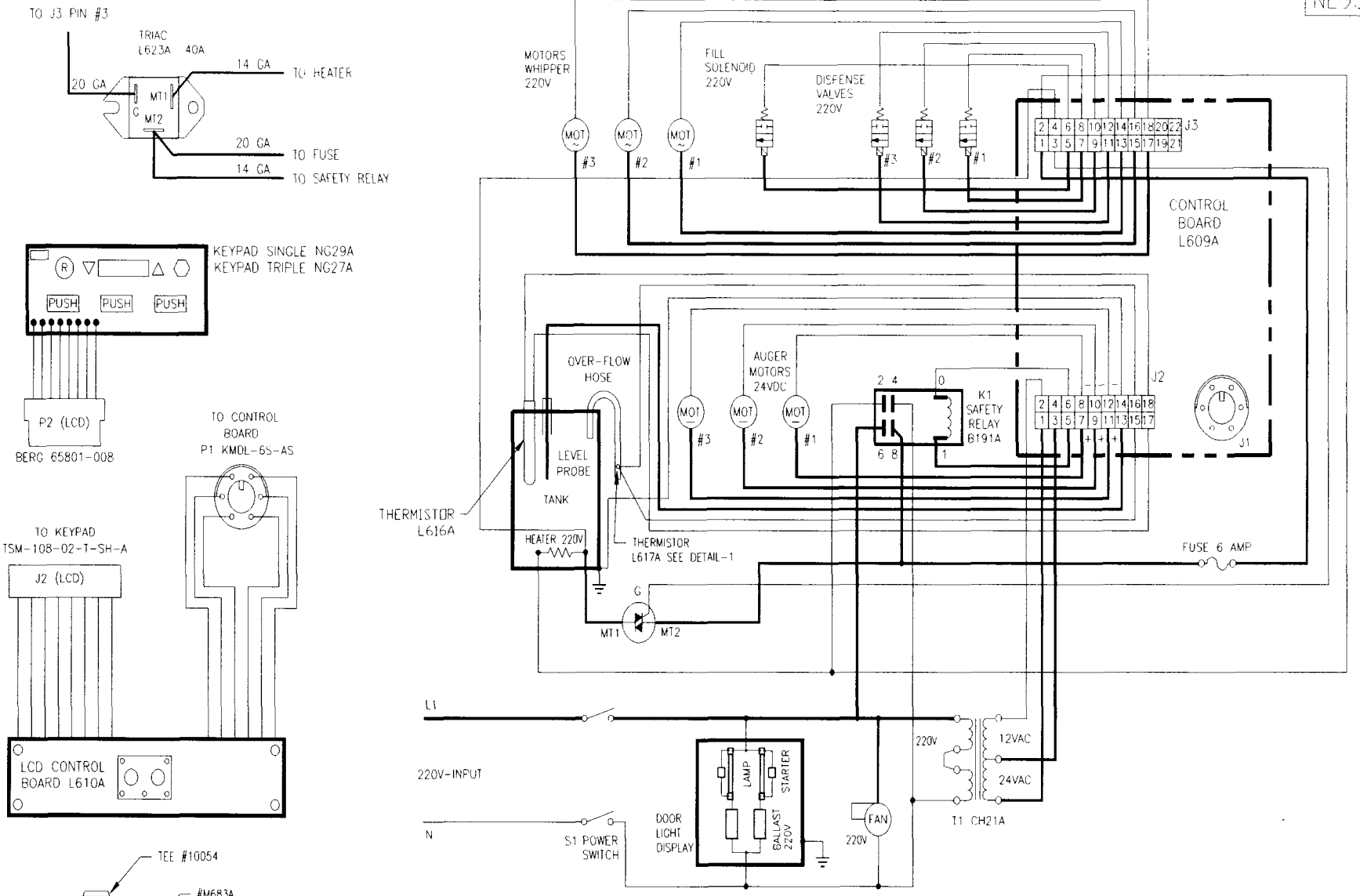
REV	BY	DATE	DESCRIPTION

TOLERANCES ON DIMENSIONS NOT OTHERWISE SPECIFIED	FINISHED DECIMAL FRACTIONAL ANGULAR ✓ ±.005 ±1/64 ±1/2°	MATERIAL	
	DO NOT SCALE THIS DRAWING	APPROVED BY	DATE / PART NO NE94A
		DRAWN BY M.M.	DATE 11/23/98 / SCALE 1 : 1

DECILWARE CORPORATION 45-05 20 AVE. L.I.C. NY 11105

TITLE ELECTRICAL DIAGRAM - 120V (GB3-IT)	DRAWING NO NE94A	REV.

NE95A



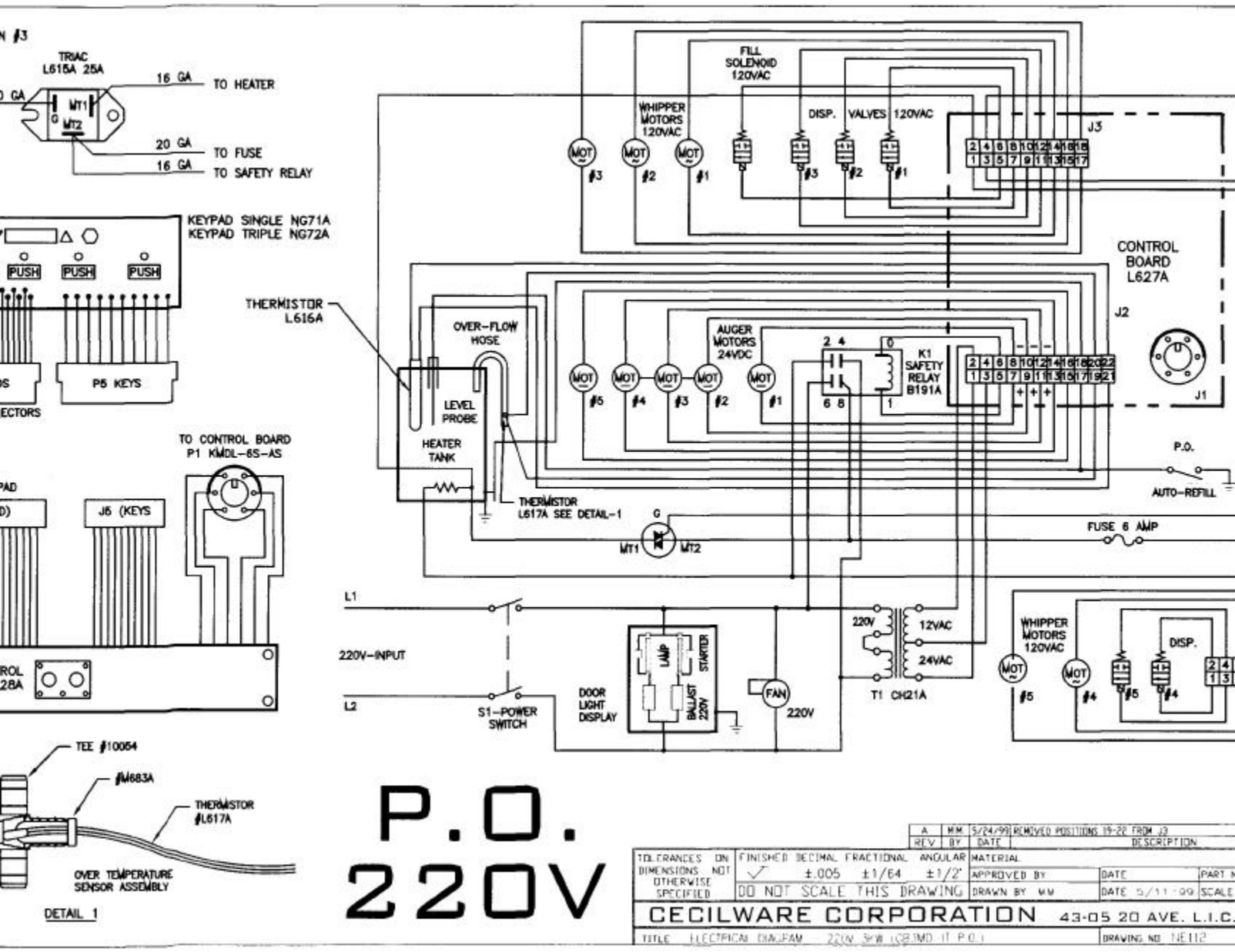
220V

REV	BY	DATE	DESCRIPTION

TOLERANCES ON DIMENSIONS NOT OTHERWISE SPECIFIED	FINISHED DECIMAL FRACTIONAL ANGULAR ±.005 ±1/64 ±1/2°	MATERIAL	
	DO NOT SCALE THIS DRAWING	APPROVED BY	DATE
		DRAWN BY GV	DATE 1/14/99
		PART NO NE95A	SCALE 1 : 1

CECILWARE CORPORATION

TITLE ELECTRICAL DIAGRAM - 220V (CB3-II)	DRAWING NO NE95A	REV.



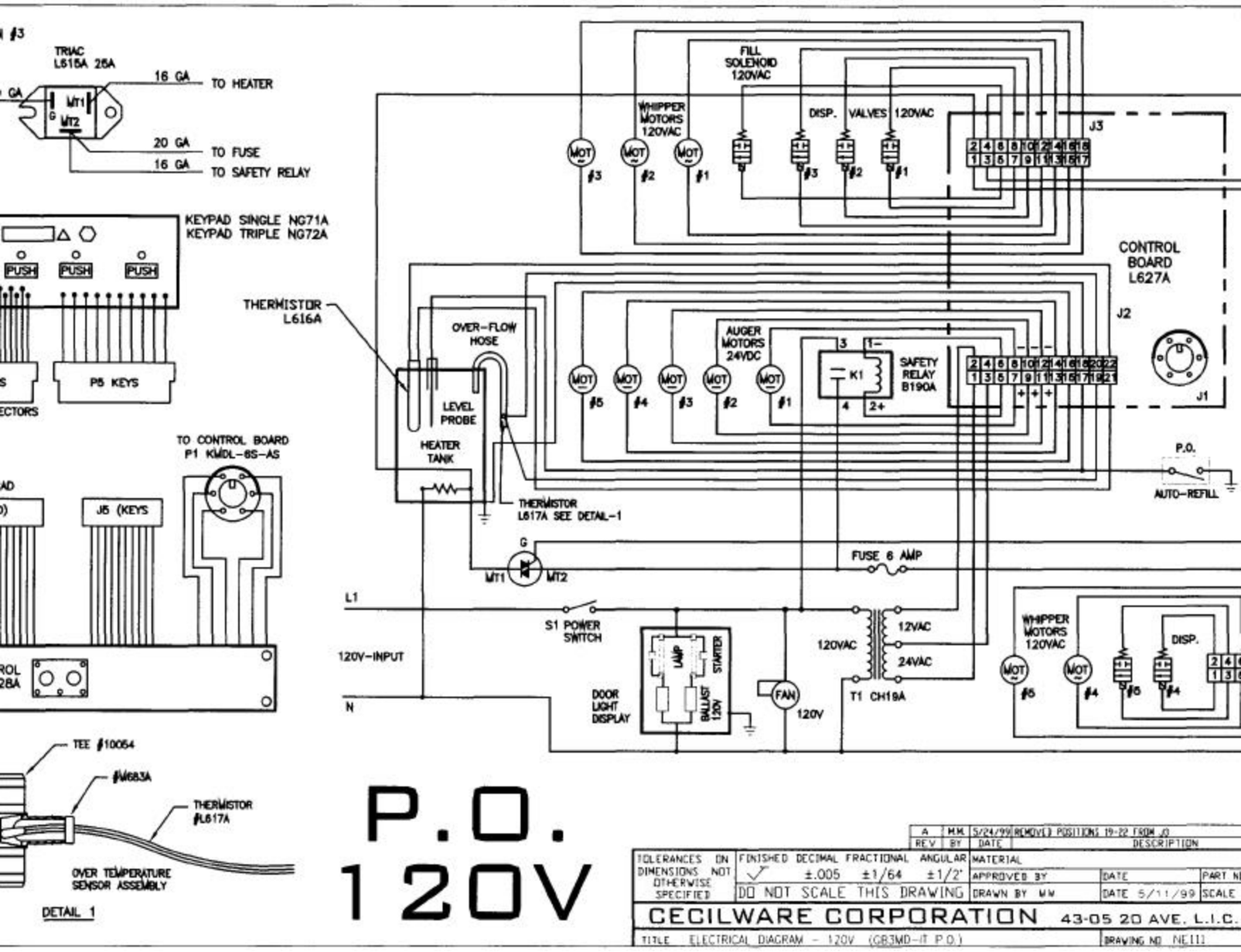
P.O.
220V

REV	BY	DATE	DESCRIPTION
A	MM	5/24/99	REMOVED POSITIONS 19-22 FROM J3

TOLERANCES ON DIMENSIONS NOT OTHERWISE SPECIFIED	FINISHED DECIMAL FRACTIONAL ANGULAR ±.005 ±1/64 ±1/2°	MATERIAL	
	DO NOT SCALE THIS DRAWING	APPROVED BY	DATE
		DRAWN BY MM	DATE 5/11/99 SCALE

CECILWARE CORPORATION 43-05 20 AVE. L.I.C.

TITLE ELECTRICAL DIAGRAM 220V SKW (CB3MD IT P.O.) DRAWING NO. NE112



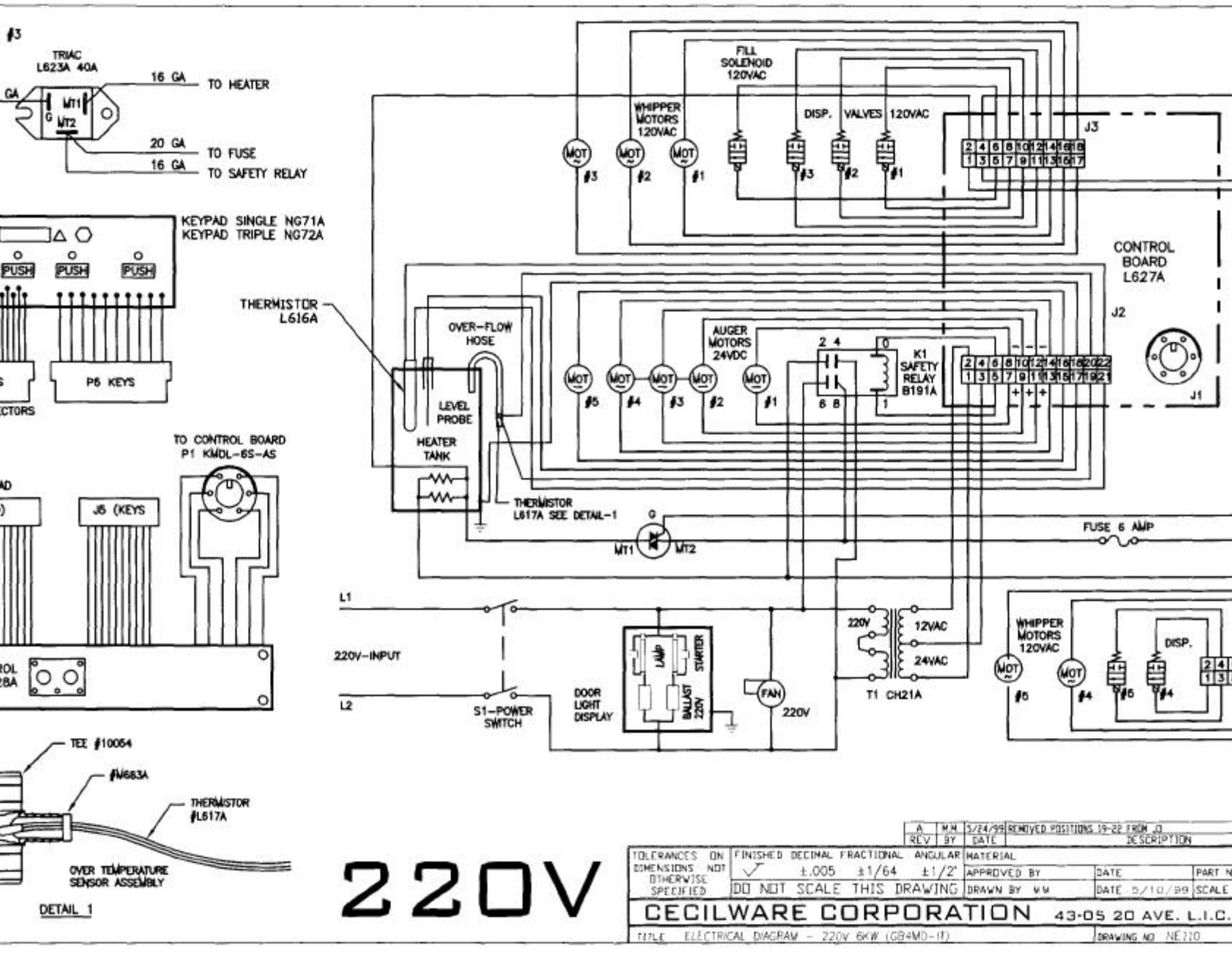
P.O.
120V

REV	BY	DATE	DESCRIPTION
A	MM	5/24/99	REMOVED POSITIONS 19-22 FROM J2

TOLERANCES ON DIMENSIONS NOT OTHERWISE SPECIFIED	FINISHED DECIMAL FRACTIONAL ANGULAR ✓ ±.005 ±1/64 ±1/2°	MATERIAL	
	DO NOT SCALE THIS DRAWING	APPROVED BY	DATE / PART N
		DRAWN BY MM	DATE 5/11/99 / SCALE

CECILWARE CORPORATION 43-05 20 AVE. L.I.C.

TITLE ELECTRICAL DIAGRAM - 120V (GB3MD-IT P.O.) DRAWING NO NE111



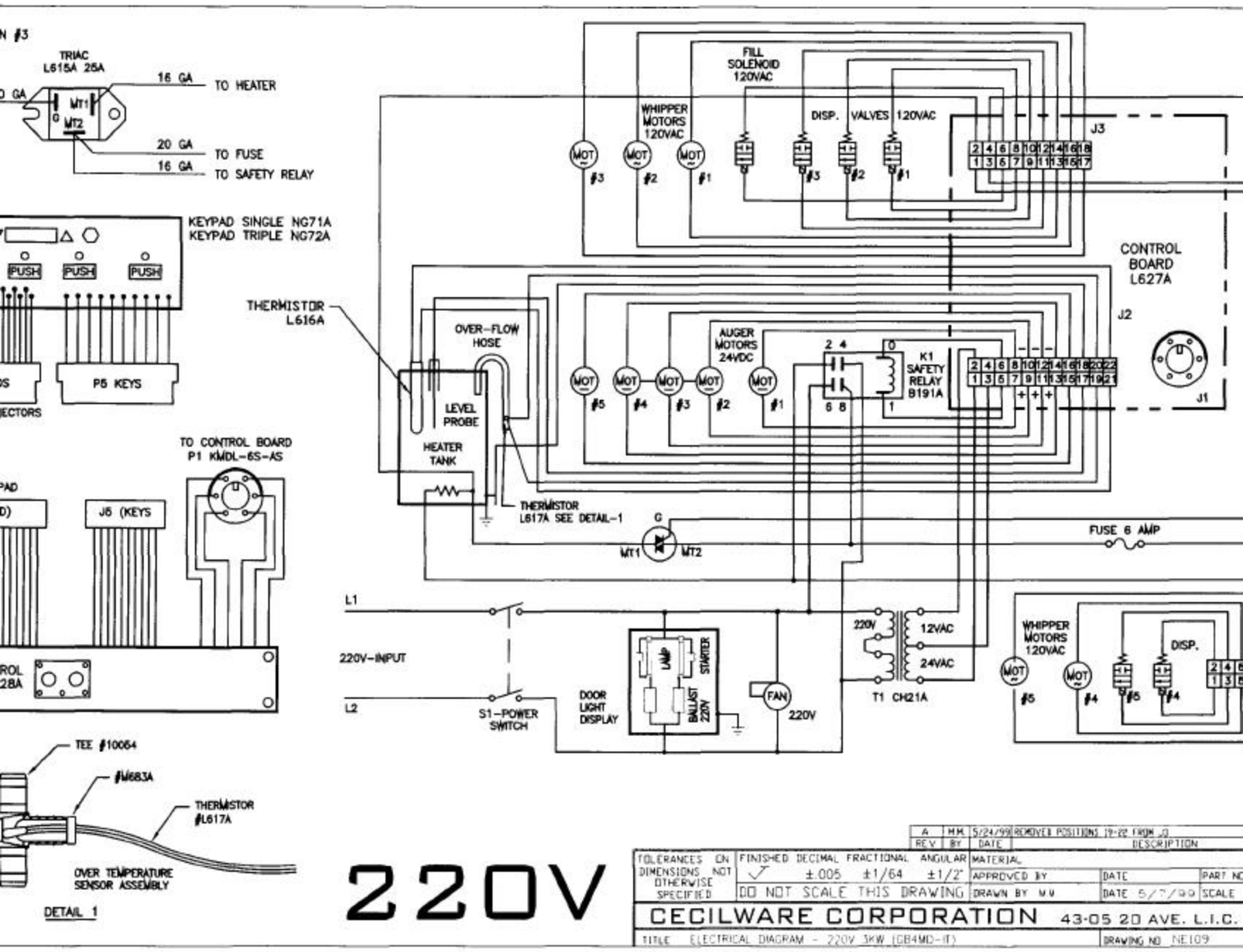
REV	BY	DATE	DESCRIPTION
A	MM	5/24/99	REMOVED POSITIONS 19-22 FROM J3

TOLERANCES ON DIMENSIONS NOT OTHERWISE SPECIFIED	FINISHED DECIMAL FRACTIONAL ANGULAR ✓ ±.005 ±1/64 ±1/2°	MATERIAL		PART N
	DO NOT SCALE THIS DRAWING	APPROVED BY	DATE	SCALE
		DRAWN BY MM	DATE 5/10/99	

220V

CECILWARE CORPORATION 43-05 20 AVE. L.I.C.

TITLE ELECTRICAL DIAGRAM - 220V 6KW (GB4MD-IT) DRAWING NO NE220



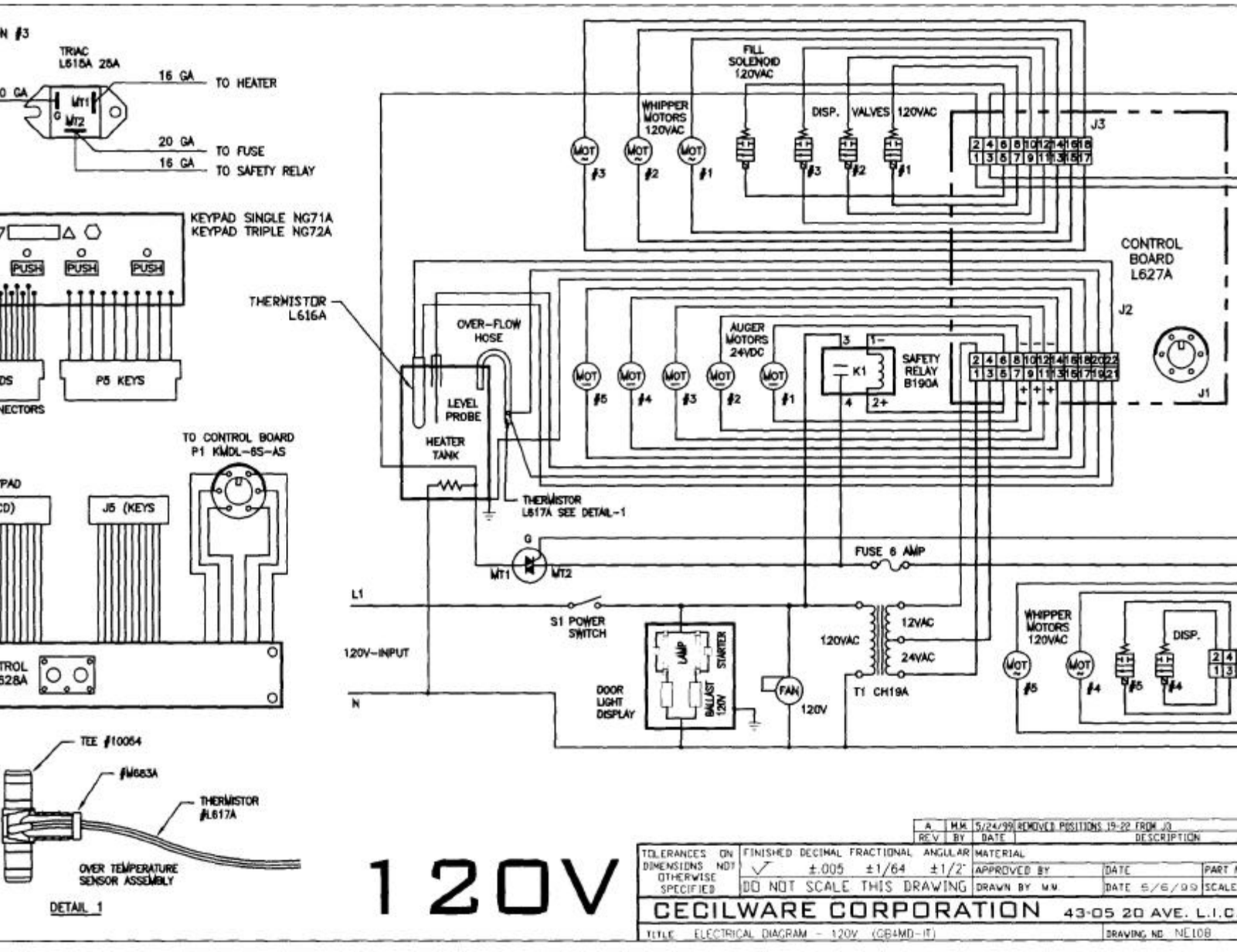
220V

REV	BY	DATE	DESCRIPTION
A	MK	5/24/99	REMOVED POSITIONS 19-22 FROM J3

TOLERANCES ON DIMENSIONS NOT OTHERWISE SPECIFIED	FINISHED DECIMAL FRACTIONAL ANGULAR ±.005 ±1/64 ±1/2°	MATERIAL	
	DO NOT SCALE THIS DRAWING	APPROVED BY	DATE / PART NO
		DRAWN BY M.V	DATE 5/7/99 SCALE

CECILWARE CORPORATION 43-05 20 AVE. L.I.C.

TITLE ELECTRICAL DIAGRAM - 220V 3KW (DB4MD-IT) DRAWING NO NE109



120V

REV	BY	DATE	DESCRIPTION
A	M.M.	5/24/99	REMOVED POSITIONS 19-22 FROM J3

TOLERANCES ON DIMENSIONS NOT OTHERWISE SPECIFIED	FINISHED ✓	DECIMAL ±.005	FRACTIONAL ±1/64	ANGULAR ±1/2°	MATERIAL
DO NOT SCALE THIS DRAWING				APPROVED BY	DATE / PART
				DRAWN BY M.M.	DATE 5/6/99 / SCALE

CECILWARE CORPORATION 43-05 20 AVE. L.I.C.

TITLE ELECTRICAL DIAGRAM - 120V (CB4MD-IT) DRAWING NO. NE108